

Section 3

THE ECONOMIC IMPACT OF EXPO 2025 OSAKA-KANSAI AND THE POSSIBILITY OF A 'GREATER EXPO'

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In Section 1, we explained that underinvestment was the cause of the persistent decline of the Kansai economy and concluded that increasing investment in Kansai would boost its economic growth rate. Then, in Section 2, we summarized the progress of infrastructure development related to the Expo, the largest infrastructure development project in the Kansai region, as well as investment related to the project.

In this section, based on publicly available data from the Association for International Expositions and the Osaka City reflecting the progress made for Expo-related projects in Osaka and Kansai, we use the new 2015 Kansai Inter-Regional Input-Output Table (provisional version) developed by the Asia Pacific Institute of Research (APIR) to estimate the economic impact of the Expo from the final demand for consumer spending and investment expenditure. The estimates presented here represent the economic impact when the final demand is generated mainly from the pavilion at the Yumeshima site. In addition, we introduce a new concept of the development of a 'Greater Expo' (turning the whole Kansai region into a pavilion). We estimate the economic impact in the event that the concept of a 'Greater Expo' is realized, and we compare the economic impact of these two scenarios. We also discuss the possibility of a virtual Expo and examine the need to expand demand not only in Osaka but also in the greater Kansai region in order to boost economic growth.

1. The Economic Impact of the Expo 2025 Venue (Yumeshima)

(1) Assumptions about Final Demand

In order to measure the economic impact of the Expo 2025 Osaka-Kansai, first we need to make assumptions about final demand. As discussed in the previous section, the final demand generated by the Expo can be broadly classified into (1) investment expenditure, represented by expenses for constructing venues, exhibiting, and related projects, including railroads and roads, and (2) consumer spending by visitors. For the final demand, we first estimated each demand item by region and industry, and we then assigned it to one of the 108 sectors in the Kansai Inter-Regional Input-Output Table. [Table 4-3-1](#) shows the

Table 4-3-1 Investment expenditure, etc., accompanying the Expo 2025 Osaka-Kansai

1-1. Venue construction expenses (organizer)		(JPN 100 million)
Infrastructure development (civil engineering construction, pavement, landscaping, etc.)		130
Infrastructure development (electricity, water supply and drainage, etc.)		285
Parking lot, entrance		171
Pavilion facilities, service facilities		1,103
Rendering at the venue		50
Other (research and design expenses, administrative expenses)		108
Total		1,847
1-2. Venue construction expenses (exhibitors)		
Pavilion facilities, service facilities		495
Rendering at the venue		49
Other (research and design expenses, administrative expenses)		106
Total		650
Total construction expenses		2,497
2-1. Operating expenses (organizer)		
Planning business, transportation business, etc.		565
Venue management, administrative personnel expenses, etc.		146
Advertising, promotion, etc.		58
Planning, project coordination, etc.		39
Total		809
2-2. Operating expenses (exhibitors)		
Venue management, administrative personnel expenses, etc.		876
Advertising, promotion, etc.		350
Planning, project coordination, etc.		234
Total		1,460
Total operating expenses		2,269
3. Related infrastructure development		
Railroad development, etc. (extension of the subway Chuo Line and expansion of the transportation capacity)		610
Road improvements, etc. (widening of Konohana Bridge and Yumemai Bridge, etc.)		250
Expense for reclamation, etc.		89
Other		179
Total		1,128
Total related infrastructure		1,128
Total		5,894

Source: Prepared based on the Basic Plan by the Japan Association for the 2025 World Exposition and the website of the Osaka City

estimated breakdown of the expenses for venue construction, operations, and related projects.

Table 4-3-2 Consumer spending by visitors to the Expo 2025 Osaka-Kansai

(JPY 100 million)

	Domestic day visitors	Domestic overnight visitors	Overseas
Transportation expenses	1,196	738	198
Lodging expenses	0	838	562
Food and drinks expenses	540	404	412
Shopping expenses	832	357	633
Entertainment services expenses	777	303	76
Total	3,344	2,640	1,881
		Total	7,866

Source: Based on the Basic Plan by the Japan Association for the 2025 World Exposition and the Travel and Tourism Consumption Trend Survey by the Japan Tourism Agency

Consumer spending by visitors is calculated by first assuming the number of visitors and then multiplying it by the per capita consumption unit price obtained from the Travel and Tourism Consumption Trend Survey published by the Japan Tourism Agency. The total number of visitors is expected to be 28.2 million. Of this total, 15.6 million (55% of the total) will come from the Kansai region, 9.1 million (32%) from other regions of Japan, and 3.5 million (13%) from overseas. We assume different consumption unit prices for each of these regional categories. We assume that visitors from domestic regions other than Kansai were overnight guests, and that they would stay in Osaka Prefecture where the Expo 2025 Osaka-Kansai is to be held. We included transportation, lodging, food and drinks, shopping, and entertainment services in the consumer spending category. Table 4-3-2 shows the estimated consumer spending based on this approach.

Total final demand (JPY 1,376.0 billion), which is the sum of investment expenditure (JPY 589.4 billion) and consumer spending (JPY 786.6 billion), is shown by major industry in Figure 4-3-1. Since final demand is not necessarily generated only in Osaka Prefecture, the venue of the Expo, it is divided into demand inside and outside of Osaka Prefecture. ‘Services and others’ have the largest share in final demand (JPY 632.5 billion), followed by the construction sector (JPY 331.2 billion), the transportation and communications sector (JPY 235.6 billion), and the manufacturing sector (JPY 95.3 billion).

Most of the final demand is generated in Osaka Prefecture (JPY 1,330.2 billion), but some is generated in Hyogo Prefecture (JPY 11.3 billion) and Kyoto Prefecture (JPY 3.0 billion).

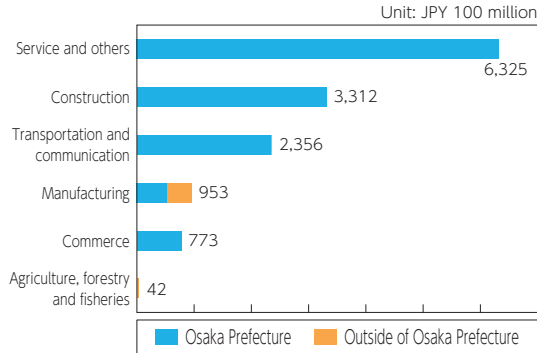


Figure 4-3-1 Final demand by industry

Source: Prepared by the authors

(2) The Economic Impact of Expo 2025 is JPY 2.4 trillion

We proceed to examine the economic impact of the conventional form of the Expo 2025 Osaka-Kansai, which will be held mainly on Yumeshima island (hereafter referred to as the 'conventional Expo'), based on (1) the above final demand assumptions and (2) the Basic Plan by the Japan Association for the 2025 World Exposition.

We estimate that the induced production (including direct and indirect impacts) throughout Japan resulting from the Expo 2025 will be JPY 2,375.9 billion, which is larger than the 2.0 trillion yen estimated by the Ministry of Economy, Trade, and Industry (METI). The reason for this is the inclusion of related project expenses for the development of the surrounding area, etc., and the increased number of visitors compared to the initially assumed number. The induced gross value added will be JPY 1,359.9 billion and the employee income impact will be JPY 720.6 billion.

The economic impact of the Expo 2025 Osaka-Kansai will not be limited to Osaka Prefecture. Within the total JPY 2,375.9 billion, the impact on Osaka Prefecture will be JPY 1,770.7 billion, the impact on other Kansai prefectures will be JPY 185.1 billion, and the impact on the rest of Japan (i.e. outside Kansai) will be JPY 420.1 billion. Figure 4-3-2 shows the induced production amount generated outside of Osaka Prefecture by region.

Next, Figure 4-3-3 shows the induced production by industry. The industry that will benefit the most from the Expo 2025 Osaka-Kansai will be 'services and others', with JPY 807.4 billion (Osaka Prefecture: JPY 701.7 billion). This is followed by transportation and communications with JPY 424.3 billion (Osaka Prefecture: JPY 331.6 billion), manufacturing with JPY 341.9 billion (Osaka

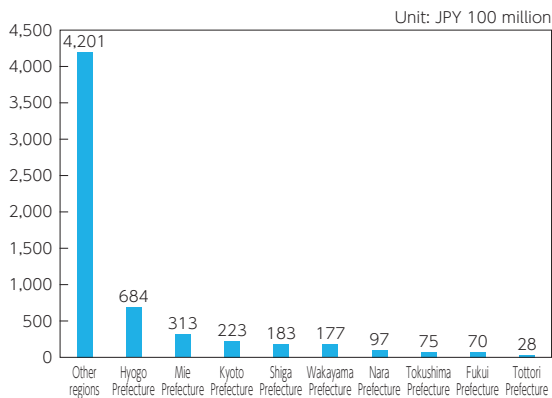


Figure 4-3-2

Induced production amount by region (excluding Osaka Prefecture)

Source: Prepared by the author

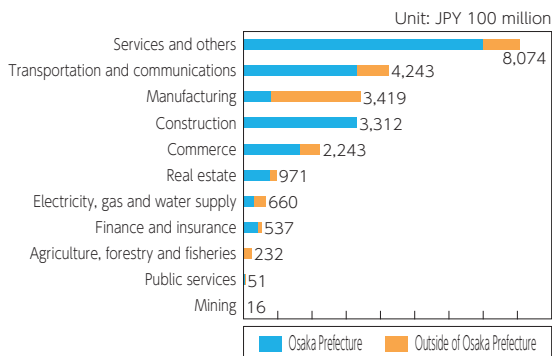


Figure 4-3-3

Induced production amount brought about by holding the Expo by industry

Source: Prepared by the author

Prefecture: JPY 80.6 billion), construction with JPY 331.2 billion, and commerce with JPY 224.3 billion (Osaka Prefecture: JPY 165.9 billion).

2. A 'Greater Expo' with the Whole Kansai Region as a Pavilion

The Expo 2025 Osaka-Kansai will affect not only Osaka Prefecture, where the event will be held. In addition, based on the idea of a 'Greater Expo', various initiatives are expected to be undertaken throughout the Kansai region. As

described in Column A, the 'Greater Expo' concept refers to expanding the Expo in terms of theme, time, space, and other aspects, in a way that the entire Kansai region can function as a pavilion. For example, in conjunction with the Expo 2025 Osaka-Kansai, Hyogo Prefecture plans to develop a field pavilion in which the whole of the prefecture will be transformed into a pavilion to attract tourists. In the following section, we explain the economic impact of the various measures taken throughout the Kansai region based on this idea of a 'Greater Expo'¹⁾.

(1) Will a 'Greater Expo' Increase the Number of Overnight Stays?

First, we examine the possibility of increasing the number of overnight stays (extended stays) by implementing initiatives such as the 'Greater Expo' based on several previous cases and studies.

A good example to refer to is the Edinburgh Fringe Festival. In contrast to an official festival that began in 1947 presenting classical and contemporary plays, opera, and classical ballet, the Fringe Festival started as a small and peripheral event. Despite this, it is now known as the largest arts festival in the world. This art festival not only produces economic impact but also fosters pride among local residents by achieving synergies through cooperation and joint promotion by the respective business entities.

Among previous studies, Towse (2010), based on data from Massachusetts, U.S., revealed that tourists who visit for cultural purposes spend USD 62 per day and USD 200 in total during a trip more than other tourists, and they stay half a day more at each destination. In other words, cultural tourism can potentially boost overall tourism in terms of increasing the number of days visitors stay and the amount of money they spend. With respect to Australia, it has been found that the economic impact of cycling tourism is expected to be more than AUD 60 million per year by 2030 due to an increase in the number of days tourists spend²⁾. As a Japanese case study, Akasaka and Hirooka (2021) developed a one-day trial tour for foreign tourists with children at the Ocha no Kyoto site in the suburbs of Kyoto, and they found through an empirical analysis of the results of the trial tour that 62% intended to stay longer. Experiential tours, which are representative of the consumption of intangible goods, are believed to have a

- 1) It is assumed that the Expo 2025 Osaka-Kansai will include not only initiatives in various parts of the Kansai region, but also initiatives through virtual experiences and other online initiatives. The economic impact of these virtual experiences is summarized in the Box.
- 2) For further details, please refer to the Results of a Survey on Global Intangible Goods Consumption and Overseas Travelers' Attitudes and Actual Situations from the Japan Tourism Agency's Overview of the Experience-based Tourism Content Market.

positive impact on the length of stay³⁾.

Based on the above, it is expected that the number of overnight stays (extra nights) will increase by providing content sufficiently attractive for tourists to encourage them to stay longer.

(2) Assumptions about Final Demand related to the ‘Greater Expo’

As discussed above, we can expect a certain degree of overnight stay extension if we take advantage of the Expo 2025 Osaka-Kansai as an opportunity to provide attractive content in each region and to implement the ‘Greater Expo’ concept. We assume that domestic visitors would extend their stay by one night for the Greater Expo⁴⁾. For international visitors, we assume that they would stay for three nights and four days, but for the ‘Greater Expo’, we assume that they would stay two nights longer due to the other additional experiences at various locations⁵⁾.

Table 4-3-3 shows the assumed spending by visitors related to the Greater Expo. The assumptions for per capita spending and the number of domestic visitors are the same as for the conventional Expo (discussed above). In addition to lodging expenses, food and drinks and entertainment, services are also assumed to increase proportionally to the number of days spent in Japan. Greater Expo spending by domestic overnight visitors would be JPY 420.1 billion, an increase of JPY 156.1 billion compared to the conventional Expo (JPY 264.0 billion), and spending by international visitors would be JPY 259.9 billion, an increase of JPY 71.8 billion compared to the conventional Expo (JPY 188.1 billion). Total spending by visitors would be JPY 1,014.4 billion.

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- 3) On the other hand, not all initiatives necessarily have the effect of extending stays, and there are studies with negative results. A typical example is the research of Rizzo et al. (2016), who found that despite expectations that World Heritage sites would increase stays, such effects were not always apparent based on the results of an analysis of Italian data from 1995 to 2010.
 - 4) Since the overnight guests are considered to be visitors from outside the Kansai region, the impact of offering various additional sightseeing experiences throughout the Kansai region as part of the Greater Expo would be highly effective.
 - 5) As for the destination of the extra night stay, for domestic overnight visitors, the destination of the extra night stay was determined according to the total number of overnight visitors in Osaka Prefecture from Kyoto Prefecture, Hyogo Prefecture, and Nara Prefecture that reported in the Japan Tourism Agency’s Lodging Travel Statistics Survey (2019). For overseas visitors to Japan, the first night was assumed to be spent in Osaka Prefecture, and the destination of the second night was determined based on the same approach as that for domestic overnight visitors.

Table 4-3-3 Spending by visitors in the case of a 'Greater Expo'

(JPY100 million)

	Domestic day visitors	Domestic overnight visitors	Overseas
Transportation expenses	1,196	1,107	297
Lodging expenses	0	1,676	937
Food and drinks expenses	540	606	619
Shopping expenses	832	357	633
Entertainment services expenses	777	454	114
Total	3,344	4,201	2,599
Total			10,144

Source: Prepared by the author

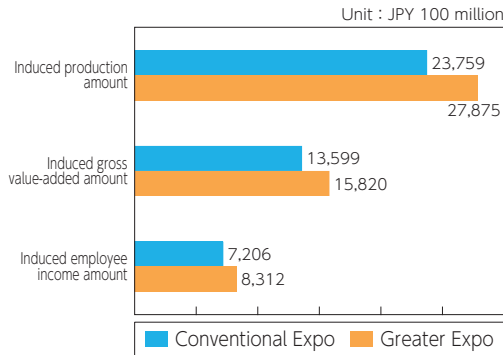


Figure 4-3-4 Comparison of the 'Greater Expo' and the conventional Expo

Source: Prepared by the author

(3) The Economic Impact of 'Greater Expo' 2025 Osaka-Kansai

Based on our assumptions about final demand related to the Greater Expo, we calculate the additional amount of induced production, gross value added, and employee income. Figure 4-3-4 is the comparison of the magnitude of each with those of the conventional Expo. The induced production would be JPY 2,375.9 billion in the case of the conventional Expo and JPY 2,787.5 billion in the case of the Greater Expo, an increase of JPY 411.6 billion. The induced gross value-added and induced employee income would increase by JPY 158.2 billion and JPY 83.1 billion, respectively. These amounts represent an increase of 13.3 to 14.8%.

Relative to the Gross Regional Product (GRP), we examined the economic impact from the perspective of induced gross value added and we found that it is

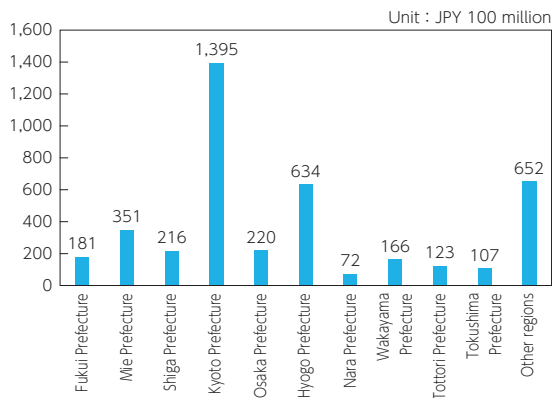


Figure 4-3-5

Differences with the conventional Expo (by region)

Source: Prepared by the author

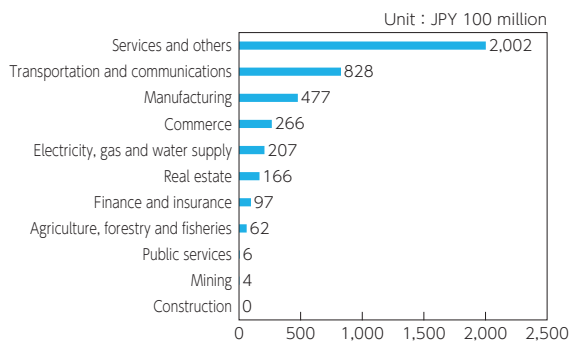


Figure 4-3-6

Differences with the conventional Expo (by industry)

Source: Prepared by the author

expected to increase by approximately 1.6%.

Figure 4-3-5 shows the extent of changes in the economic impacts of the Greater Expo and the conventional Expo for each region. The figure shows an increase in the induced production amount obtained by deducting the figure for the conventional Expo from the figure for Greater Expo. The largest increase was seen in Kyoto Prefecture, at JPY 139.5 billion, followed by other areas at JPY 65.2 billion, Hyogo Prefecture at JPY 63.4 billion, and Mie Prefecture at JPY 35.1 billion. The reason for the large increase in Kyoto Prefecture is thought to be the high ratio of ordinary overnight stays in Kyoto Prefecture.

Figure 4-3-6 shows the increase in the induced production by industry in

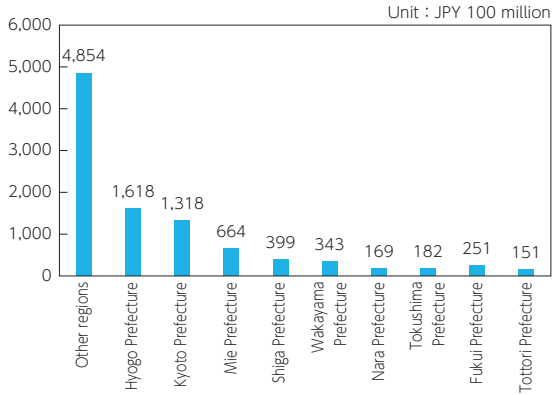


Figure 4-3-7

Induced production amount by region in the 'Greater Expo' (excluding Osaka Prefecture)

Source: Prepared by the author

order to compare the economic impact of the Greater Expo and the conventional Expo. 'Services and others' recorded the largest increase (JPY 200.2 billion), followed by transportation and communications (JPY 82.8 billion), manufacturing (JPY 47.7 billion), and commerce (JPY 26.6 billion). Thus, the impact was found to be significant in a wide range of industries, particularly in the lodging-related industry that is associated with extended stays.

Next, Figure 4-3-7 shows the amount of induced production in Osaka Prefecture versus other prefectures. In the case of a Greater Expo, additional induced production throughout Japan would be JPY 2,787.5 billion, of which, JPY 1792.7 billion would be in Osaka Prefecture and JPY 994.7 billion elsewhere. The total induced amount in regions other than Kansai would be JPY 485.4 billion, while the total induced amount in the Kansai region excluding Osaka Prefecture would be JPY 509.4 billion. Within Kansai, Kyoto Prefecture will receive the largest impact (JPY 161.8 billion), followed by Hyogo (JPY 131.8 billion), Mie (JPY 66.4 billion), and Shiga (JPY 39.9 billion) prefectures.

Finally, Figure 4-3-8 shows the amount of induced production by industry. The industry that would gain the most from the Greater Expo is 'services and others' (JPY 1,007.7 billion). This is followed by transportation and communications (JPY 507.1 billion), manufacturing (JPY 389.7 billion), construction (JPY 331.2 billion), and commerce (JPY 251.0 billion).

The above analysis focused on the economic impact generated by actual visits to the Expo 2025 Osaka-Kansai and the Kansai region, but what has also been attracting attention recently is the economic impact generated by virtual experiences. Although we did not directly analyze the impact of virtual

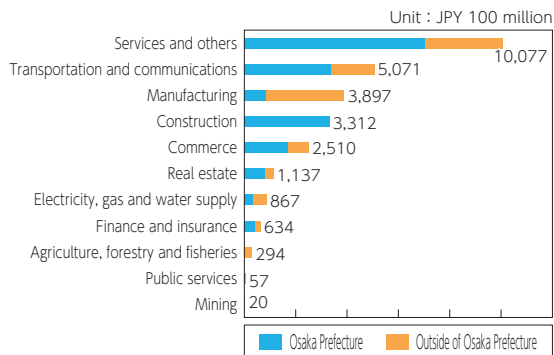


Figure 4-3-8 Induced production amount by industry in the 'Greater Expo'

Source: Prepared by the author

experiences in this article, we emphasize their importance in the Box below.

Box1 The Economic Impact of Virtual Experiences

The outbreak of COVID-19 has brought about various changes in how sightseeing tours are provided. One of the most representative initiatives of this is virtual sightseeing tours on the Internet⁶⁾. We examine the economic impact of virtual sightseeing tours from two perspectives: the impact of virtual sightseeing tours themselves, and the impact of virtual experiences leading to real experiences.

Since the outbreak of COVID-19, several studies have revealed the impact of virtual sightseeing tours. Maekawa, Senoo, and Katahira (2022) indicated that the market size of virtual sightseeing tours in Japan (in 2020) is JPY 9.59 billion, with an annual growth rate of approximately 30%, establishing a separate market from that of real sightseeing tours. JTB (2021) reported that the ratio of people who have experienced virtual sightseeing tours is 2.9%. In the White Paper on Information and Communications in Japan 2021, the Ministry of Internal Affairs and Communications (2021) indicated that the number of people who participated in the virtual sightseeing tours provided by HIS, a travel agency, had exceeded 23,000 (as of October 2020). As a case study, Sasaki (2021) reported that an initiative to send local products in advance to share region-specific experiences online is proving successful.

6) Virtual sightseeing tours here refer mainly to the so-called 'online tours'.

However, since the amount of money spent on virtual sightseeing tours alone is small, it is important to consider how virtual experiences lead to actual experiences. For the rationale for virtual experiences leading to real experiences, we can use the increase in electronic commerce (EC) transactions by inbound tourists returning to their home country as a case study. Arai (2019) indicated that for inbound tourists, a trip to Japan itself is an opportunity to try and experience Japanese products, agriculture, forestry, and fishery products, food, drink, and services. He also indicated that, there is a “showroom effect” in that visiting Japan encourages people to purchase Japanese products in their own countries even after returning home.

It is also believed that experiencing virtual sightseeing can induce real experiences. We examine if virtual sightseeing tours can lead to real sightseeing tours and consumption in the region. In the aforementioned case study in Japan, Maekawa, Senoo, and Katahira (2022) report that 88.7% of the respondents answered that they would like to visit the target area after participating in an online tour. They find that young people in particular are inclined to purchase local specialties and visit the area. In a survey on post-tour activities of those who had participated in online tours, JTB (2021) found that 11.7% of the respondents actually visited the region and 19.1% purchased local products. Adding those who answered they would like to do so in the future, nearly 60% of the respondents were stimulated to take action based on their virtual sightseeing experience.

Additionally, the Development Bank of Japan and the Japan Travel Bureau Foundation (2021) found that online tours are highly effective in stimulating the intention to visit Japan. According to a survey by Mizuho Research & Technologies (2022), 27.4% of the respondents answered that participation in virtual tours made them want to actually visit the places for which they were guided, indicating that their intention to travel to the actual sites increased.

In view of the fact that virtual experiences provide impetus for real experiences has been confirmed in various surveys, we believe it will be important to link virtual experiences to actual sightseeing tours in the case of Expo 2025 Osaka-Kansai as well.

3. Revitalizing Kansai's Economy through a Greater Expo and Infrastructure Development

In Section 1 of this chapter, we cited a lack of investment as the main cause for the stagnation of Kansai's economy over the past 50 years, and we suggested the potential for growth in the Kansai region through increased investment leveraged by the Expo 2025 Osaka-Kansai and other events.

In Section 2, we explained the economic impact of infrastructure development in general, and we then outlined the actual state of infrastructure development in the Kansai region in preparation for the Expo 2025 Osaka-Kansai.

In Section 3, we estimated the economic impact of the Expo 2025 Osaka-Kansai, which will be held mainly at the pavilion on Yumeshima island. In addition to this, we estimated the economic impact of a 'Greater Expo' which is the idea of expanding the Expo in terms of theme, time, space, and other aspects, in a way that the entire Kansai region can function as a pavilion. To compare the economic impact of the conventional Expo versus a Greater Expo in terms of the GRP in Osaka, we estimated the additionally induced gross value added. The additional gross value-added amount would be JPY 1,359.9 billion in the case of the conventional Expo and JPY 1,582.0 billion in the case of the Greater Expo, or JPY 222.1 billion (+14.0%) higher. Comparing the impact on the GRP of the greater Kansai region, an increase of +1.6% is expected. Osaka Prefecture's share of the economic impact would be 74.5% (= JPY 1,770.7 billion/2,375.9 billion) in the case of the conventional Expo and 64.3% (= JPY 1792.7 billion/2,787.5 billion) in the case of a Greater Expo.

Clearly, it is undesirable for the economic impact of a large-scale event such as Expo 2025 to be limited to a specific region or a specific period. Our analysis shows that the impact of a Greater Expo would be much larger not only in terms of induced value added, but also in terms of the regions it would affect. If a 'Greater Expo' is implemented, including creating contents that are attractive to tourists and incentives that encourage consumption, visitors will stay longer in Kansai. In consideration of this, medium- to long-term initiatives should be undertaken throughout the Kansai region. It is important to strengthen the link between Expo 2025 and the growth of the Kansai economy through mechanisms such as virtual sightseeing.

We should recognize that the purpose of the Expo is to make the world aware of Kansai's attractiveness and to promote a virtuous cycle of human resources and funds through initiatives, such as implementing a 'Greater Expo,' which will provide economic momentum to the entire Kansai region. We believe that by promoting a virtuous cycle and encouraging investment from Japan and

abroad, the Kansai economy will revive and grow.

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