

Mizuho Economic Outlook & Analysis

The Economic Impact of the 2020 Tokyo Olympic Games

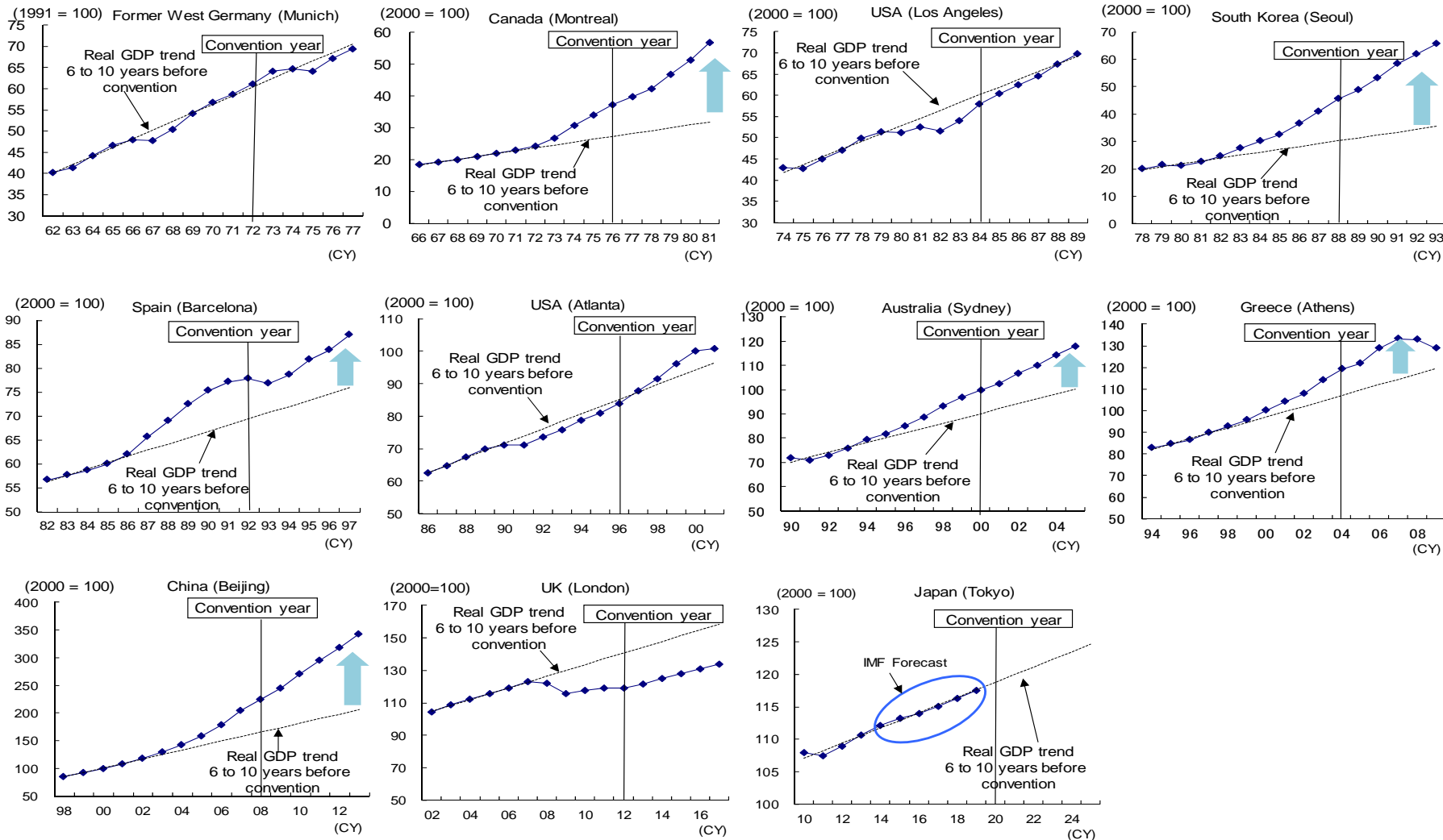
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Mizuho Research Institute

Economic Research Department

Estimation of the impact of the Olympic Games (as a driver of GDP) from a macroeconomic approach

- In the former Olympic host countries, the rate of real GDP growth has tended to show an uptick five years prior to and including the year of the Games compared with the trend line of six to ten years prior to the Games.



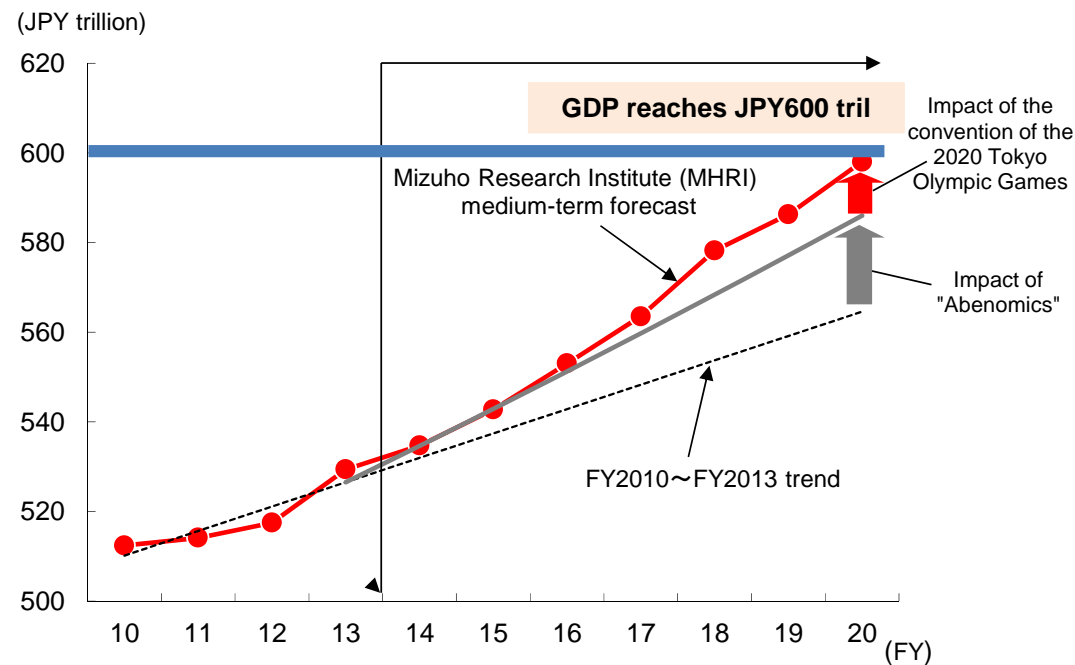
There is an inclination for economic growth to outpace the trend lines

Sources: Made by Mizuho Research Institute (MHIRI) based upon data releases by institutions including the IMF, CEIC, Haver, Federal Statistical Office of Germany, and Statistics Canada.

The 2020 Tokyo Olympics has the potential to push up real GDP by JPY36 trillion

- The 2020 Tokyo Olympics would push up real GDP by an annual average of +0.3% pt during the period from 2015 through 2020 (total additional growth of JPY36 trillion).
 - The “boost” to real GDP is based upon the average boost observed in the former host countries (ex South Korea, China and the UK*)
 - (*) South Korea, and China were excluded since the Olympic Games coincided with periods of rapid economic expansion in the respective countries. The UK was excluded as the Games were held in the wake of the severe recession that followed the collapse of Lehman Brothers.
 - Japan’s real GDP may reach approximately JPY600 trillion in 2020 due to the effects of the Olympic Games and “Abenomics”.

[The impact of the 2020 Tokyo Olympic Games in boosting real GDP]



Source: MHRI.

The impact of the Olympics analyzed: three phases and two effects

	Direct impact	Incidental impact
Before the Games	<ul style="list-style-type: none"> ▼ Rise of construction investment (games facilities, Olympic village, etc.) ▼ Rise of consumption expenditures (related goods, household electrical appliances, etc.) 	<ul style="list-style-type: none"> ▼ Rise of stock and land prices and the accompanying wealth effect ▼ Increase in the number of foreign tourists and international events such as conferences <ul style="list-style-type: none"> ▪ Synergy effect created by an improved image and by promotional and other measures ▼ Acceleration in urban infrastructure improvements, revitalization of private-sector investment <ul style="list-style-type: none"> ▪ Acceleration of public infrastructure improvements (earthquake resistance, barrier-free structures, transportation infrastructure, etc.) ▪ Reactivation of renovation investments by private-sector entities such as hotels and retail concerns
During the Games	<ul style="list-style-type: none"> ▼ Games-related expenses (operating expenses, IT systems, etc.) ▼ Spending by spectators (accommodations, travel, transportation, meals, etc.) <ul style="list-style-type: none"> ▪ Spending by foreign tourists (spectators) ▪ Spending by domestic tourists (spectators) ▼ Consumer spending (Olympic-related goods, household electrical appliances, etc.) 	<ul style="list-style-type: none"> ▼ More tourists visiting regional areas <ul style="list-style-type: none"> ▪ Promotion of regional tourism by attracting foreign Olympic spectators ▼ Increase in sports-related spending <ul style="list-style-type: none"> ▪ Increased spending inspired by Olympic athletes
After the Games	<ul style="list-style-type: none"> ▼ Effective use of the Games facilities (such as for parks) ▼ Redevelopment of the Games sites 	<ul style="list-style-type: none"> ▼ Upward trend in the number of foreign tourists <ul style="list-style-type: none"> ▪ Improved image due to success of Olympic Games ▼ Improved competitiveness and productivity of urban areas <ul style="list-style-type: none"> ▪ The benefits of improved infrastructure and revitalized private-sector investments ▼ Increase in sports-related spending <ul style="list-style-type: none"> ▪ Increased spending inspired by Olympic athletes

Source: Made by MHRI.

Estimation of the direct impact

- The Olympics will likely create new demand worth JPY1 trillion from the construction of Games facilities, increase in the number of tourists, and other effects.
- The total production inducement effect will likely amount to JPY2.5 trillion, including the secondary ripple effect (production inducement from increased spending owing to the increase in income from the primary ripple effect).
- Creation of 209,000 jobs is expected, mostly in the construction, retail and service sectors.

[New demand]

Total new demand	JPY989.0 bil
<Breakdown>	
(1) Facility improvement (permanent structures and overlay*)	JPY455.4 bil
(2) Games operating expenses (venue rents, operating expenses, IT systems, etc.)	JPY205.0 bil
(3) Spending by spectators (accommodation, transportation, meals, etc.)	JPY207.4 bil
(4) Other household spending (purchases of related goods)	JPY121.2 bil



[Economic ripple effect]

Production inducement	JPY2.5 tril
Increase in income	JPY0.6 tril
Job creation (no. of new employees)	209,000
<Breakdown>	
Construction	41,000
Wholesale & retail	58,000
Services for businesses	30,000
Services for individuals	25,000
Others	55,000

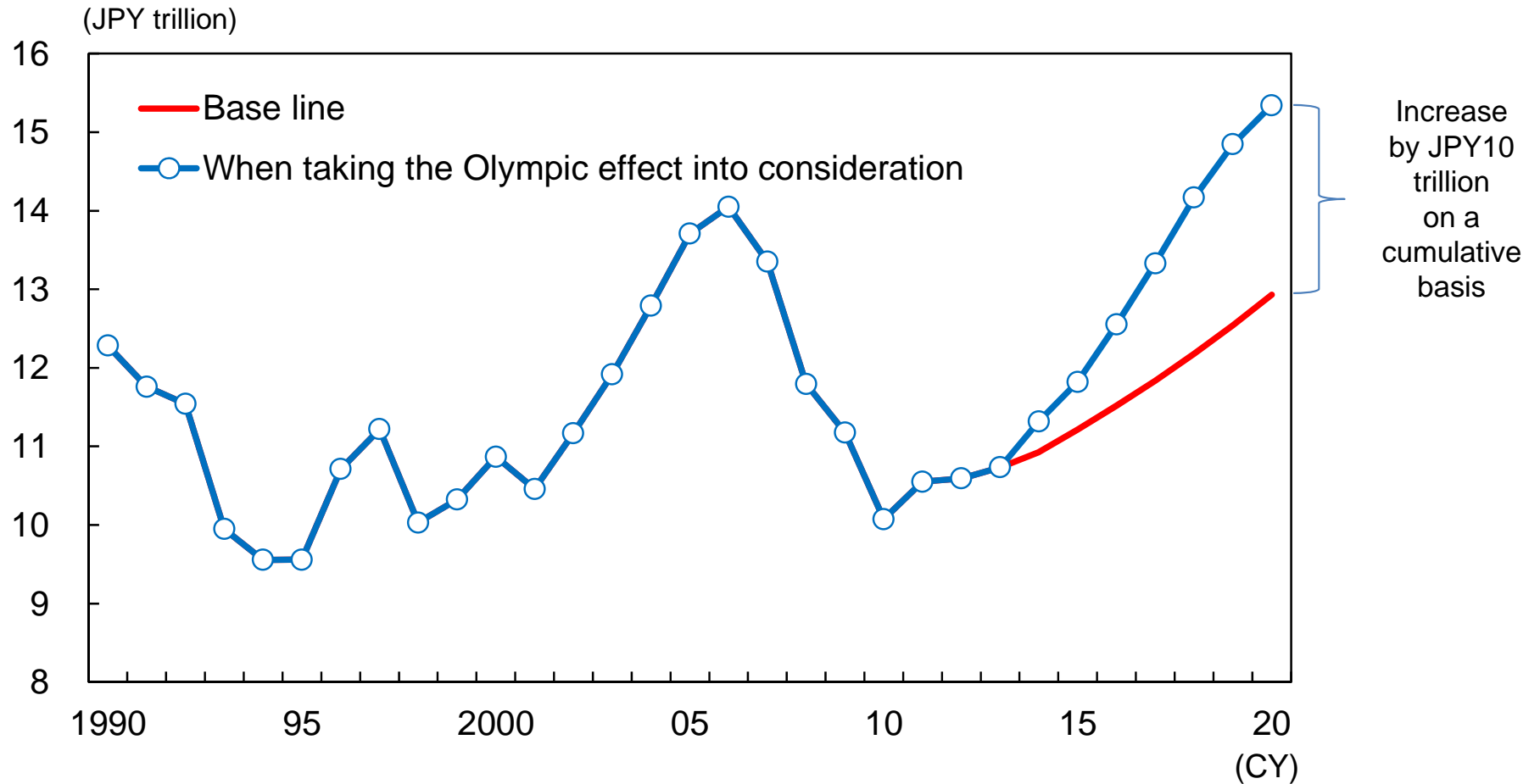
Notes: 1. The economic ripple effect was calculated on the basis of the 2005 *Input-Output Tables* by the Ministry of Internal Affairs and Communications.

2. Overlay* refers to temporary facilities and structures used only during the Olympics.

Source: Made by MHRI.

Major Olympics-related sectors can push up private-sector investment by approximately JPY10 trillion

[Capital investment by four Olympics-related sectors in the Tokyo metropolitan area]



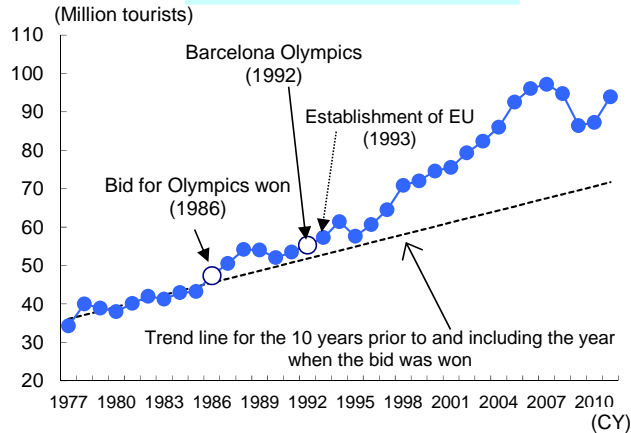
Notes: Capital investment by the four Olympics-related sectors (services, real estate, transportation & communications, wholesale & retail) in the Tokyo Metropolis and Kanagawa, Chiba and Saitama Prefectures. Based on 1990 prices.

Source: Made by MHRI based upon Cabinet Office, *Private Capital Stock by Prefecture*, and others.

Winning the bid for the Olympics appears to stimulate the host country's inbound demand over the long haul

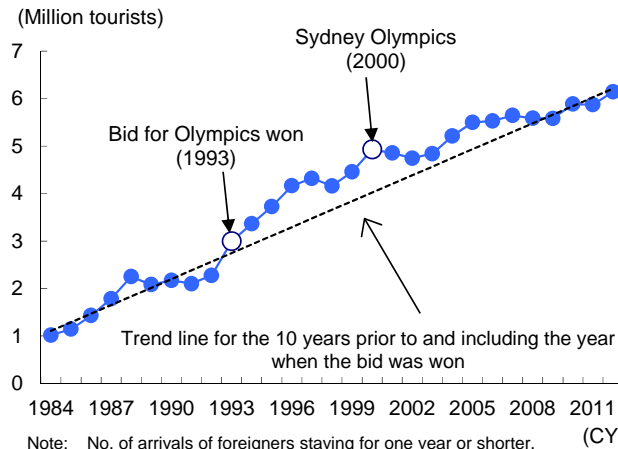
[Number of inbound tourists before and after the Olympics]

Spain (1992)



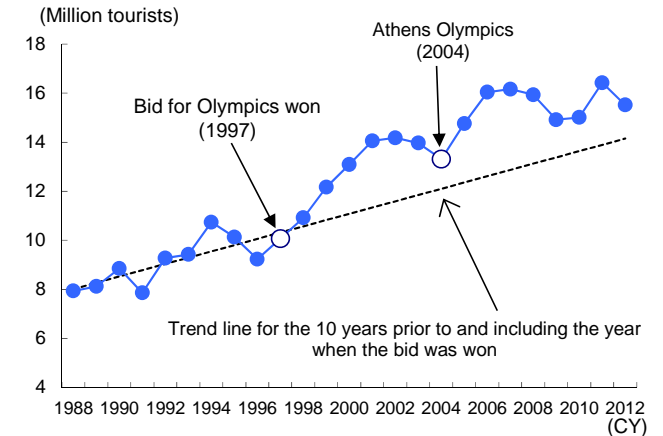
Note: No. of foreign tourists to Spain (including day trips).
Source: Venancio Bote Gómez (1994), Instituto de Estudios Turísticos, and others.

Australia (2000)



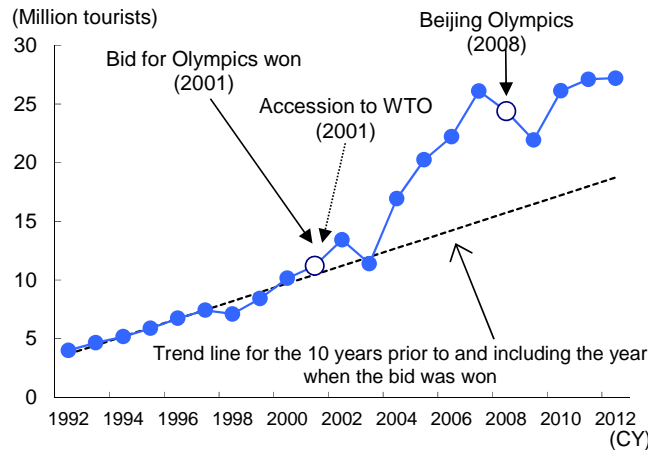
Note: No. of arrivals of foreigners staying for one year or shorter.
Source: Australian Bureau of Statistics

Greece (2004)



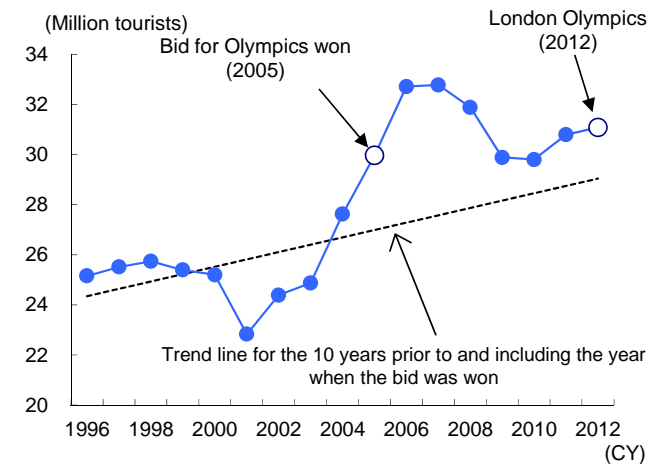
Note: No. of foreign tourists visiting Greece.
Sources: Greek National Tourism Organization, National Statistical Service of Greece, World Bank.

China (2008)



Note: No. of arrivals of foreigners (ex visitors from Hong Kong, Macau and Taiwan).
Source: China National Tourism Administration.

UK (2012)

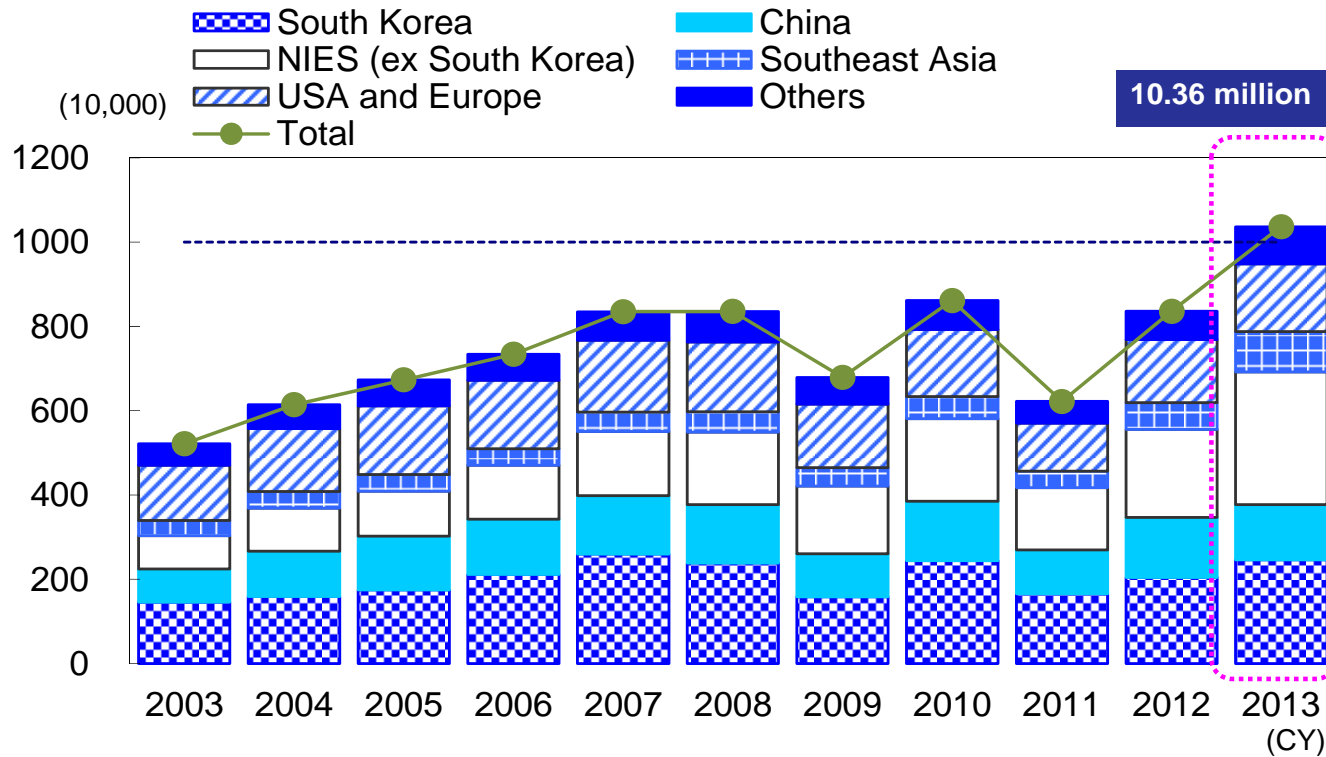


Note: No. of foreign visitors to the UK (including day trips).
Source: Office for National Statistics.

The number of foreign visitors to Japan exceeded 10 million in 2013

- The number of foreign visitors to Japan topped 10 million in 2013 thanks to the weaker yen and more accommodative visa requirements.

[Trends in the number of foreign visitors to Japan]

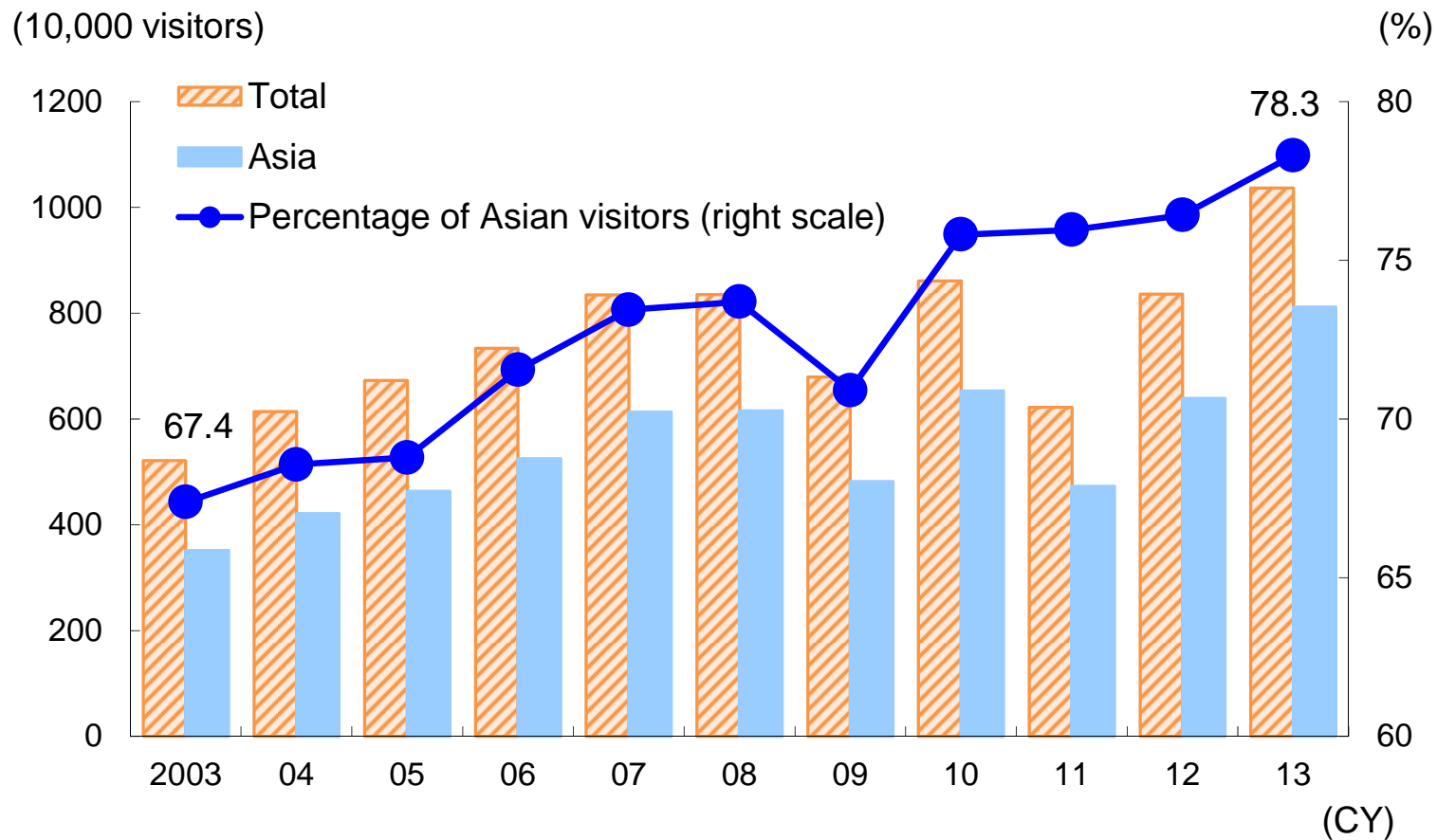


Note: "NIES (ex South Korea)" refers to Hong Kong, Taiwan and Singapore. "Southeast Asia" refers to the five countries of Thailand, Malaysia, Indonesia, Vietnam and the Philippines, for which visa requirements were eased in July 2013.
 Source: Made by MHRI based upon Japan National Tourism Organization, *Honichi gaikyaku no doko (Trends in the number of foreign visitors to Japan)*.

The bulk of foreign visitors are from Asia

- The percentage share of Asian visitors has risen from roughly 70% to about 80% over the last 10 years.

[Changes in the number of foreign visitors (Total vs. from Asia)]

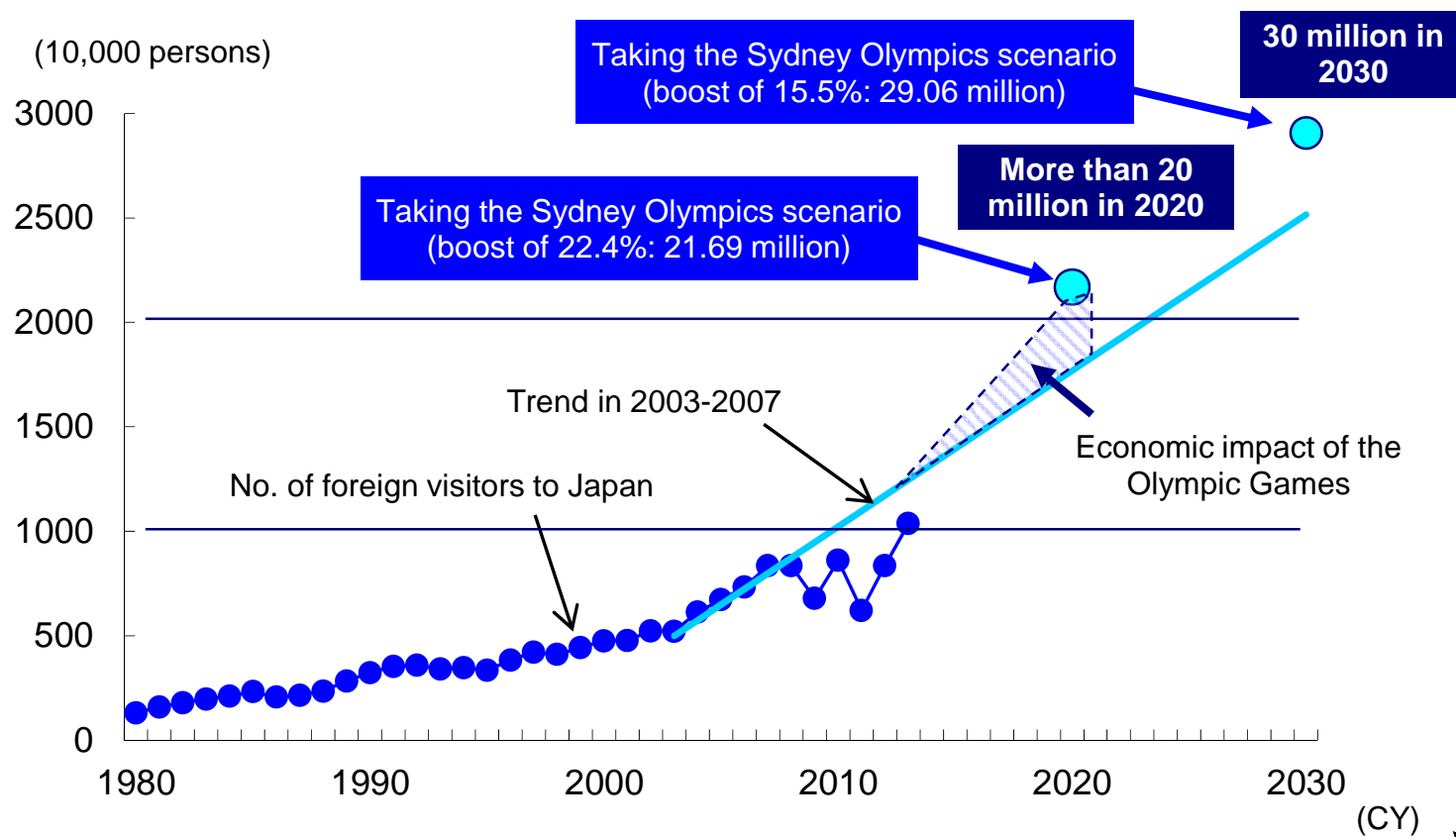


Sources: Made by MHRI based upon releases by Japan National Tourism Organization (JNTO).

The number of foreign visitors to Japan may top 20 million in 2020 through the promotion of Olympic-targeted measures

- The number of foreign visitors to Japan could top 20 million in 2020, and 30 million in 2030.

[Projection of the number of foreign visitors to Japan]



Notes: In projecting the number of foreign visitors in 2020 and 2030, the scenario of the Sydney Olympics was adopted, where the number of inbound tourists to Australia outpaced the past trend by 22.4% during the year of the Olympics and by 15.5% 10 years after winning the bid, and the boosting effect was factored in on top of the 2003-2007 trend line accordingly.

Sources: Made by MHRI based upon releases by Japan National Tourism Organization (JNTO) and others.

Spending by foreign tourists to Japan could create an added value of JPY3 trillion

[Economic impact of the increasing number of foreign visitors]

	2013	2020	Cumulative impact over seven years
Increase in the number of foreign visitors (10,000 visitors)	-	400	1,600
Before winning the bid	1,036	1,769	-
After winning the bid	1,036	2,169	-
Spending per visitor (10 thousand yen)	15.8	17.4	-
Economic effect per visitor (10 thousand yen)	17.8	19.5	-
Added value (trillion yen)	-	0.8	3.1

Notes: 1. We have estimated that the number of foreign visitors in 2020 will reach 21.69 million owing to the Olympic Games.

2. In the backdrop of the Olympic Games, we have also estimated that the number of foreign students will increase to 300,000 (2013: 136 thousand students), and that the number of foreign workers will also rise, mainly in the construction sector due to the increased construction investment related to the Olympic Games. (① Construction workers will increase by 70,000 in six years, ② 200,000 foreign houseworkers will come to Japan annually through 2020, and ③ the number of foreign workers with resident status, particularly those highly skilled, will increase by 206 thousand on the back of a two-fold increase in foreign direct investment in Japan). As a result of such increase, we have assumed that the share of visitors coming to Japan to study or to attend conferences or for other business purposes will also expand.

Sources: Made by MHRl based upon releases by Japan National Tourism Organization (JNTO) and others.

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