

The Impact of the Olympics on the Hosting City or Nation's Economy - Tokyo 2020 Summer Olympics

Chenyi Yu*

German European School Singapore, Singapore, 677621, Singapore

*chenyi.yu.st@gess.edu.sg

Abstract. The Tokyo 2020 Summer Olympics was initially planned to bring attention to Japan's technologies while significantly boosting its economy. However, due to the COVID-19 pandemic, the Tokyo Olympics prohibited Japan from drawing millions of tourists and generating enormous revenue. Empty stadiums, strict travel restrictions, and public skepticism characterized it. This paper will analyze the economic implications of Japan hosting the Olympics, focusing on the impacts on infrastructure and investments, tourism, branding and technology, and financial costs. The initial expectation for the Summer Olympics was centered around bringing global visibility and tourism. Still, the COVID-19 pandemic prohibited these outcomes, which resulted in a severe economic downturn and a rise in public debt. The paper also highlights the opportunity costs associated with the Olympics, particularly in terms of resources that could have been used for pandemic assistance and economic recovery. Taking these results into account, this paper suggests strategies for Japan to recover effectively, focusing on optimizing infrastructure usage, revitalizing the tourism sector, supporting local businesses, and fostering economic resilience through diversification.

Keywords: Japan 2020 Olympics, COVID-19, Impacts.

1. Introduction

The Olympics is a major international sporting event with thousands of athletes competing. It is one of the most widely observed and celebrated events, drawing athletes, spectators, and the media's attention across the globe. This event has a significant social and economic impact on nations in addition to sporting aspects. Hosting the Olympic Games can increase tourism and recognition worldwide for the hosting country, but it comes at a high expense. Tokyo hosted the 2020 Olympic Games to demonstrate its technologies and hospitality while offering significant economic benefits. Billions were spent building and developing new venues and temporary infrastructures. Japan expected millions of tourists to come and visit, with more people investing in the country and their technologies. However, due to the COVID-19 pandemic in Wuhan, China, which spread worldwide, the Prime Minister of Japan, Shinzo Abe, and the International Olympic Committee (IOC) agreed to postpone the Games until 2021. Japan hosted a global event unlike before, with empty stadiums and closed borders. Yet, the resilience of Japan in the face of these unprecedented challenges is truly inspiring. The Olympics, once viewed as an ideal opportunity for economic expansion, ended up being a mixed blessing, forcing Japan to consider the pros and cons of organizing the Olympics. This paper will use the case analysis method to discuss the impact of the Olympics on investment and infrastructure, tourism, branding and technology showcasing, and financial and opportunity costs with long-term considerations.

2. Case Brief

Japan experienced a slow economic recovery after the 2008 financial crisis, significantly impacting its economy. The crisis led to long-term issues such as an aging population, slow economic growth, and high debt before 2020, as shown in Table 1 [1].

Table 1. Japan Statistics in 2021

| Japan Statistics: | | OECD average |
|--|--------|--------------|
| Population (million) | 126.3 | |
| Under 15 (%) | 12.6 | 17.9 |
| Over 65 (%) | 28 | 17.1 |
| Latest 5-year average growth (%) | -0.2 | 0.6 |
| Gross domestic product (GDP in billions) in USD | 5134.4 | |
| Gross domestic product (GDP in trillions) in yen | 559.8 | |
| Latest 5-year average growth (%) | 0.9 | 2.2 |
| Per capita | 42.8 | 47.6 |

The Japanese government saw the Olympics as a chance to stimulate growth. The estimated cost of hosting this event was \$7.3 billion. Eventually, the price rose to more than \$15 billion, with some estimating the total spending even higher [2]. Japan aimed to attract more tourists, generate global media attention, and demonstrate technological advancements, such as robotics and sustainability. However, the COVID-19 pandemic delayed the event by a year, leading to several challenges that impacted Japan's economic outcome. With less than 40,000 spectators allowed in the stadiums, the ticket revenue dropped from 90 billion yen (\$0.6 billion) to 1 billion yen (\$6.7 million) [3]. The pandemic also caused a massive jump in the money spent on countermeasures for COVID-19, including providing vaccines and clinics. About 83% of Japanese citizens were against hosting the Olympics, with 40% wanting it postponed and 43% wanting it canceled [4]. On the other hand, the IOC wanted Japan to host the Olympics to demonstrate the world's solidarity even during the pandemic [5]. However, COVID-19 still affected many countries' plans, support, and participation in the Olympics.

3. Impact on Tokyo and Japan's Economy

3.1. Investment and Infrastructure

3.1.1 Short term effects

Japan's preparation for the Olympics involved significant spending on infrastructure and improving its functions and aesthetics. Especially in Tokyo, investments were made in transportation, such as new train lines and upgraded airports, stadiums, and accommodation facilities [6]. The construction sector experienced a short-term boom, generating temporary and permanent jobs and raising workers' wages. The Olympic infrastructure projects were expected to create about 200,000 temporary and permanent jobs during the construction phase, with the average salary of a construction worker being around 3000-3500 yen (\$20-23.4) per hour before the preparation of the Olympics, during the Olympics preparation, the wage got to 3500-4000 yen (\$23.4-26.7) per hour. Among the more significant projects were large-scale initiatives such as the \$1.4 billion National Stadium and the Olympic Village. Tokyo also upgraded its transportation systems, which enhances the city's global competitiveness.

3.1.2 Long term effects

Despite the immediate gains, there were concerns about large venues that need to be more utilized after the Games. Tokyo's plan for some stadiums involves repurposing them for public use or local sporting events, but the long-term utility remains uncertain. However, despite the environmental impact, the construction of new stadiums and infrastructure is expected to benefit the local economy for years, especially since Tokyo is a global business hub. Infrastructure improvements can also save money for the government as they reduce energy consumption costs and provide more efficient public transportation. This will lead to more organizations consuming and investing in the country, offering a brighter future. The potential long-term benefits of the Olympics should inspire optimism about Japan's economic future.

3.2. Impact on Tourism

3.2.1 Pre-Olympics

Tourism was expected to be one of the largest beneficiaries of the Tokyo Olympics. Japan has experienced a tourism boom, with foreign visitors rising from 10,363,094 in 2013 to 31,882,049 by 2019. The government had set a goal of welcoming 40 million visitors in 2020, hoping the Olympics would provide a massive boost, as more tourists mean more benefits for local businesses, such as restaurants and hotels, therefore benefiting the economy. The Olympics were also positioned to promote hospitality, showcasing Japan’s culture to the world [7]. However, the number of foreign visitors visiting Japan decreased to only 4,115,828. In 2021, due to the Olympics, the government restricted visitors coming in, causing a massive decrease to only 245,862 tourists, as shown in Figure 1 [8].

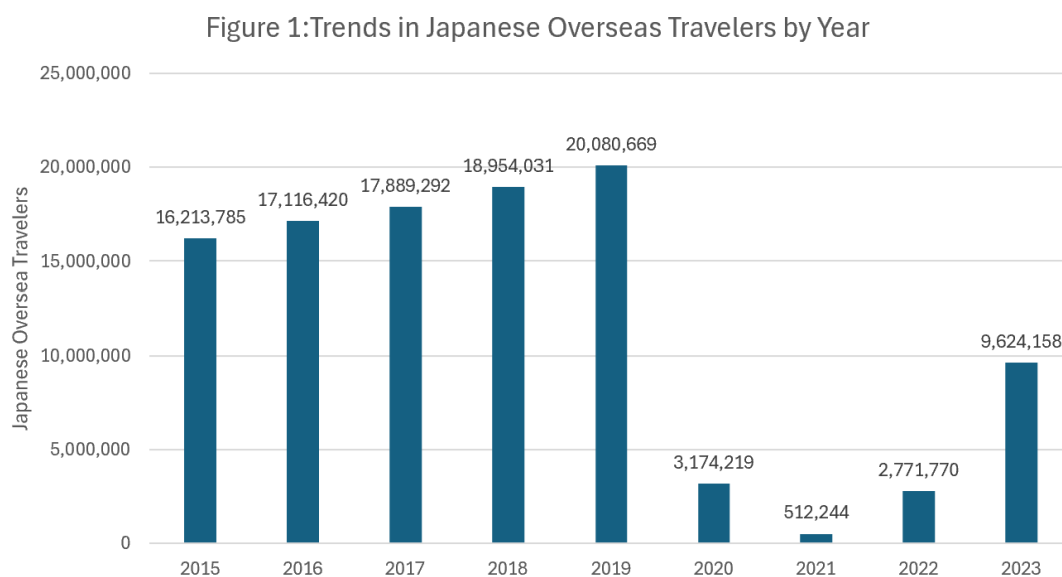


Fig. 1 Trends in Japanese overseas travelers by year

3.2.2 COVID-19 Effect

The pandemic dramatically altered these projections. Travel bans, lockdowns, and the ban on international spectators stripped the hospitality and tourism sectors of the influx they were counting on. Instead of the millions of tourists expected, Tokyo’s hotels, restaurants, and retailers faced financial ruin. Some estimates suggest that the absence of tourists alone cost Japan \$1.4 billion in potential revenue [9]. This loss affected businesses and contributed to a shrinking of Japan’s GDP in 2020, decreasing 3.74% compared to 2019 [10].

3.3. Branding and Technology Showcasing

3.3.1 Benefits of technologies

Hosting the Olympics is a part of Japan's larger strategy to increase its global influence. The Olympics offered an opportunity to showcase Japanese culture, innovation, and technological prowess worldwide. From using hydrogen-powered vehicles to robot guides at Olympic venues, Japan positioned itself as a technology and environmental sustainability leader.

3.3.2 Long term effects

Tokyo in 2020 was notable for its emphasis on innovation. The Olympics integrated advanced technology in several areas, such as using 5G networks for seamless communication, facial recognition for security, and energy-efficient venues powered by renewable sources. Although these innovations had limited visibility due to the absence of spectators, the products and technologies are expected to have a long-term increase in Japan’s GDP by spurring technological exports and

partnerships. These technologies would also attract several investments in their products. As Japan brands itself with a reputation for innovation, it can attract high-skilled workers and researchers to Japan to create a vibrant working environment [11].

Although Japan did not receive the expected media attention due to the pandemic, the Games still reinforced Japan's image as a modern, technologically advanced country. This branding could result in long-term economic benefits, attracting foreign investment when global conditions improve. Hosting the Olympics enhanced Japan's international image as a beautiful country, attracting others to invest in Japan and creating more trading opportunities.

3.4. Financial Costs

The cost of hosting the Tokyo Olympics soared, exacerbated by the one-year postponement and the additional measures needed to ensure the Games' safety during the pandemic. Estimates suggest that Japan's total spending on the Games reached over \$20 billion, making it one of the most expensive in history. Much of this cost was covered by public funds, leading to concerns about Japan's already high public debt, which exceeded 240% of GDP [12].

The pandemic added unforeseen expenses related to health and safety, including extensive COVID-19 testing, quarantine protocols, and isolating athletes and staff. These measures were critical for ensuring the Games took place but came at a high cost. Even though the organizer scaled down the event, including cutting down 10-15% of the officials and invitations for opening and closing ceremonies, which decreased some costs, the pandemic still caused more negatives than positives for Japan. Moreover, the lack of ticket sales due to the absence of spectators added to the financial strain, leading to a loss of around \$595 million in anticipated revenue [3].

3.5. Opportunity Costs and Long-Term Considerations

Despite significant opposition from the public, Japan's decision to proceed with the Olympics in 2021 was driven by the sunk costs and the hope that the Games would provide some level of economic and symbolic benefit [4]. However, the opportunity cost of this decision cannot be ignored. Some economists argue that the money and effort spent on the Olympics could have been better utilized for pandemic relief and economic recovery. Additionally, the public debt incurred by hosting the Games will have long-term implications for Japan's economy. The government could have used the money for education and healthcare. Still, it chose to spend money on hosting the Olympics, and the plan did not work, causing a more significant potential economic impact.

On the other hand, the infrastructure improvements and branding gains from the Olympics could yield benefits in the years to come, especially as Japan looks to revive its tourism sector post-pandemic. The Games also provided a platform for Japan to demonstrate its capacity to host a global event under extraordinary circumstances, which may lead to future opportunities for international collaboration and investment.

4. Suggestions

The Olympics were planned to improve the economy and showcase Japan's technology. However, hosting the Olympics did not benefit Japan; their plan failed, causing economic loss. Here are some suggestions of how Japan can recover from the Olympics.

4.1. Infrastructures

Since Japan designed, improved, and built several new venues, the government can develop a plan for their ongoing use. For example, it could add its national team training facilities to turn them into its sporting base, convert them into community centers, host sporting events, or even hold concerts or significant events. Maintaining the use of these venues can save money from building more infrastructure.

4.2. Tourism Recovery

After the pandemic, foreign visitors can travel to Japan again. Japan's participation in the Olympics showcased its hospitality, safety, and technology. Using the branding that they did during the Olympics can effectively attract tourists. One way to improve tourism is to collaborate with influencers to share their experiences in Japan or create ads highlighting its cultural aspects and natural beauty, attracting more people to visit on social media.

4.3. Local Businesses

Due to the Olympics and the pandemic, local businesses did not earn much. The Japanese government can create a financial support system that includes low-interest loans, grants, and tax incentives to help them recover from the loss. They can also make a system that encourages locals and foreigners to buy more local products.

4.4. Strengthen Economic Resilience

The Japanese government can facilitate partnerships and investments between industries to foster innovation, leading to a more resilient economic landscape. Promoting projects such as technology setups, renewable energy, and agriculture can increase the economy's diversity, making the economy more stable.

5. Conclusion

The Tokyo 2020 Olympics were a double-edged sword for Japan, initially perceived as a catalyst for economic growth but ultimately revealing the vulnerabilities of an economy grappling with unforeseen challenges. The pandemic undermined the ambitious plans for infrastructure improvements and tourism expansion, resulting in lost revenue and heightened public debt. However, this event also allowed Japan to rethink its approach to future international engagements. Japan can navigate the post-Olympic landscape toward recovery by repurposing Olympic venues, leveraging its technological showcase, and implementing robust support systems for local businesses. Strengthening economic resilience through diversification and innovation will be critical for Japan to emerge from this period intact and revitalized, capable of facing future challenges with renewed vigor. The lessons learned from this experience will inform Japan's future strategies and set a precedent for how nations can manage global events in an ever-changing world.

References

- [1] OECD. Basic statistics of Japan, 2020 in OECD Economic Surveys: Japan 2021, OECD Publishing, Paris, 2021.
- [2] Press, Associated, and Stephen Wade. Official Costs of Tokyo Olympics up by 22% to \$15.4 Billion. *The Diplomat.com*, The Diplomat, 23 Dec. 2020, thediplomat.com/2020/12/official-costs-of-tokyo-olympics-up-by-22-to-15-4-billion/#:~:text=The%20official%20cost%20of%20the%20postponed%20Tokyo%20Olympics%20has%20increased. Accessed 22 Sept. 2024.
- [3] Tokyo Olympics to leave Japan's economic legacy? *Contemporary county economy*, 2021, (9): 6-7.
- [4] Smith S. Here's why Tokyo is hosting the Summer Olympics despite COVID-19. *Council on Foreign Relations*, 28 June 2021, www.cfr.org/in-brief/heres-why-tokyo-hosting-summer-olympics-despite-covid-19.
- [5] IOC. Tokyo 2020 Organising Committee publishes final balanced budget - Olympic News. *International Olympic Committee*, 26 July 2022, olympics.com/ioc/news/tokyo-2020-organising-committee-publishes-final-balanced-budget.
- [6] Enatsu A. How Tokyo proposes to fund the 2020 Olympic Games. *Nomura Journal of Capital Markets*, 2014, 5(3).

- [7] Yamamura E, Tsutsui Y. The impact of postponing 2020 Tokyo Olympics on the happiness of O-MO-TE-NA-SHI workers in tourism: A consequence of COVID-19. *Sustainability*, 2020, 12(19): 8168.
- [8] Japan Tourism Statistics. Data list Japan tourism statistics Japan National Tourism Organization (JNTO). Jnto.go.jp, 2018, statistics.jnto.go.jp/en/graph/#graph--inbound--travelers--transition.
- [9] Kitamura Y, Karkour S, Ichisugi Y, Itsubo N. Evaluation of the economic, environmental, and social impacts of the COVID-19 pandemic on the Japanese tourism industry. *Sustainability*, 2020, 12(24): 10302.
- [10] Japan GDP Growth Rate 1960-2024. Macrotrends.net, 2024, www.macrotrends.net/global-metrics/countries/JPN/japan/gdp-growth-rate#:~:text=Japan%20gdp%20growth%20rate%20for%202020%20was%20-4.15%. Accessed 22 Sept. 2024.
- [11] Kassens-Noor E, Fukushige T. Olympic technologies: Tokyo 2020 and beyond: The urban technology metropolis. *Journal of Urban Technology*, 2016, 25(3): 83–104.
- [12] Briceño HR, Perote J. Determinants of the public debt in the Eurozone and its sustainability amid the Covid-19 Pandemic. *Sustainability*, 2020, 12(16): 6456.