



# A multi-perspective analysis of the social impacts of COVID-19

COVID-19 × TOKYO

**1**  
Theme

Society and the Economy

**2**  
Theme

Daily Life and Digitalization

**3**  
Theme

Children and Education

- COVID-19 went beyond the realms of medicine and public health to have major impacts on society as a whole, including the economy and daily life, and even the lives of children. With advancements in digital transformation (DX), social changes that should continue and be developed even more, such as telediagnosics, online learning, remote work and other diversified work styles, were also born.
- These various social impacts of COVID-19 were grouped under the three topics of (1) Society and the Economy, (2) Daily Life and Digitalization, and (3) Children and Education, and were discussed by the Tokyo iCDC experts and experts in these respective areas for analyses from multiple perspectives.
- The results have been compiled as a feature section of “Initiatives Taken by the Tokyo Metropolitan Government for COVID-19 Response.” By widely sharing this analysis of the social impacts of COVID-19, we will achieve a sustainable recovery as a vibrant Tokyo that lives with COVID-19.

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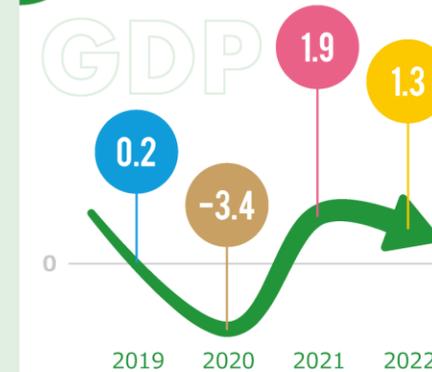
The impacts of COVID-19 on society and the economy include the following.

- **The number of cases and the mortality rate have been kept at low levels in Japan and Tokyo compared to the rest of the world.**
- **Japan's global brand appeal is rising** due to its success in containing COVID-19 and hosting the Tokyo 2020 Games amid the pandemic.
- On the other hand, **Japan's economic growth rate declined due to the pandemic, and although it is recovering, the growth rate is low when compared internationally.**
- Regarding the trade in goods balance, **although exports remain healthy, a record trade deficit was posted due to an excess of imports.** However, there is a current account balance surplus due to net income from abroad.
- **Consumer spending**, which has been sluggish for over the past two decades, **fell even more due to COVID-19.** It grew in 2022 due to rising prices, but in terms of the US dollar, it has dropped.
- There has been a **pronounced decline in service spending**, including the tourism industry which was impacted by COVID-19.
- **The Japanese economy as a whole is contracting considerably when viewed on an international scale.**
- It is speculated that **the people's overestimation of the risks of COVID-19** could be a factor behind this.
- On the other hand, **this overestimation of the risks also helped Japan in keeping the virus more contained than in other countries.**
- There is a **trade-off between COVID-19 control and ongoing economic activities.**

### Japan's economic growth rate

- Japan's economic growth rate declined with COVID-19.
- While this is recovering, the growth rate is low compared to other countries.

#### 01 Japan's nominal economic growth rate



#### 02 IMF economic growth projections

Region	2022	2023	2024
World output	3.4%	2.8%	3.0%
Japan	1.1%	1.3%	1.0%
United States	2.1%	1.6%	1.1%
Euro Area	3.5%	0.8%	1.4%

### Trade in goods balance

- Exports remain healthy, even in US dollars.
- A record trade deficit was posted due to increased imports.

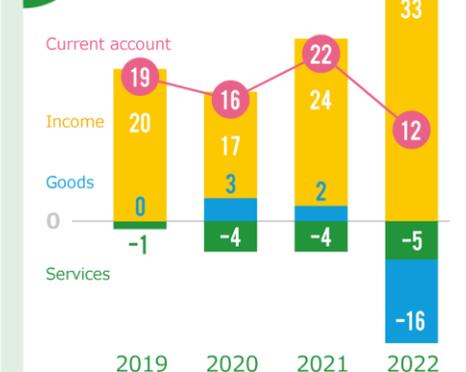
#### 03 Yen fluctuations and Japan's exports/imports



### Balance of payments

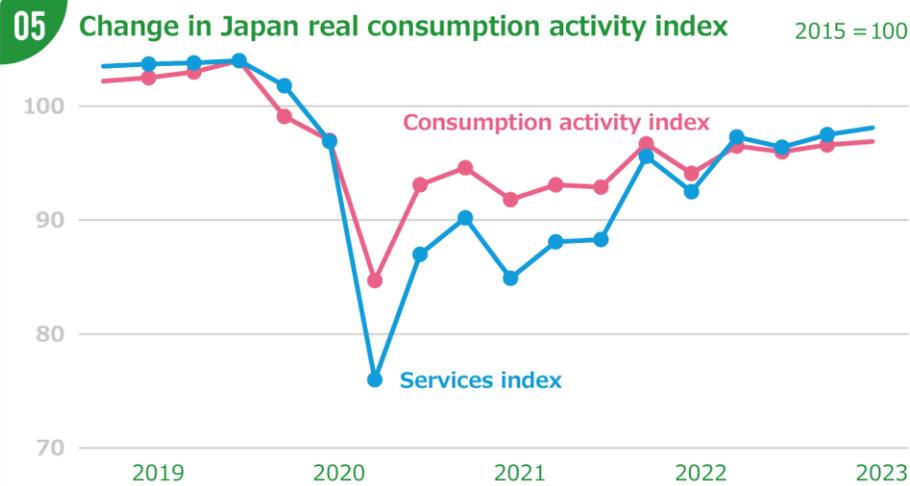
- The trade in goods balance is in the red, the income balance, which is interest and dividends from overseas, is growing, and the current account is in the black.

#### 04 Japan's balance of payments



## Personal consumption

- Personal consumption is sluggish, with a pronounced decline in services spending.



## Inbound visitors

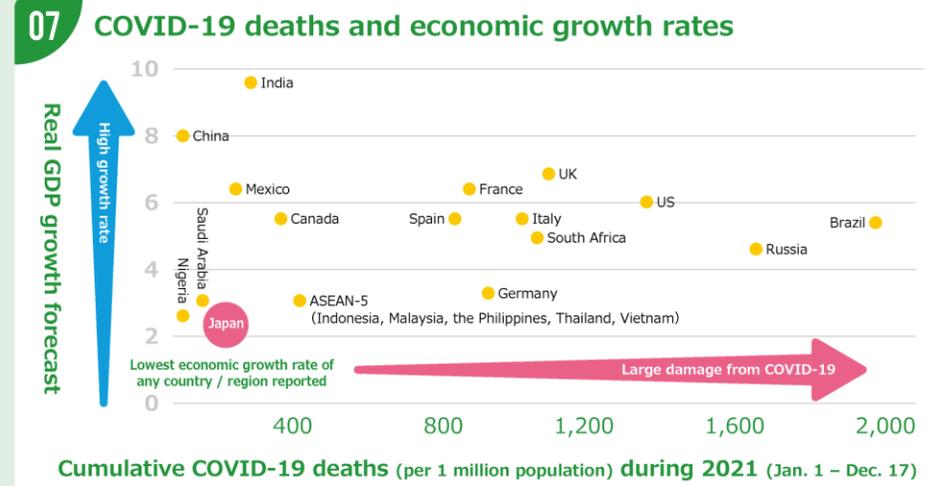
- Although the number of international visitors to Japan is recovering, it has declined significantly

**06 Change in number of international visitors to Japan**



## Comparison of COVID-19 and economic growth rates by country

- Although Japan has a low number of deaths, its economic growth rate is low.

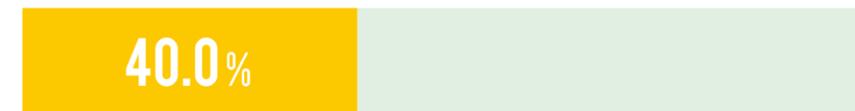


## COVID-19 risk awareness

- Many in Japan overestimate the actual risks of infection, severity, and death from COVID-19.

**08 Percentage of those who believe that there is 5% or higher risk of severe illness or death**

There is a 5% or higher risk of severe illness within one month of infection with COVID-19



★ Actual rate of severe illness : 0.06%

There is a 5% or higher risk of death within one month of infection with COVID-19



★ Actual mortality rate : 0.18%

# Theme 2 COVID-19 Daily Life and Digitalization

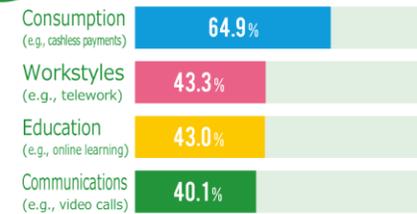
The impacts of COVID-19 on daily life and digitalization include the following.

- **The pandemic has driven digital transformation in various areas of daily life, including consumption and workstyles. Internet usage rates among children and the elderly are also rising.**
- **The adoption of telework has risen significantly, with the rate of adoption in the 23 special wards of Tokyo exceeding the national average. This has contributed to a reduction in train congestion during peak commuting hours.**
- A survey of Tokyo citizens conducted by the Tokyo iCDC Risk Communication Team found that **many people hope to see online services become more widely adopted in society.**
- However, **social reforms to build a society that coexists with COVID-19, such as promoting cashless payments and the digitalization of government services, have been insufficient.**
- Furthermore, **self-quarantine measures for close contacts of individuals who tested positive for COVID-19 impacted the labor situation.** A number of close contacts experienced a reduction in income or quit their jobs during—and in some cases, after—their self-quarantine period.
- Any infectious disease will become a part of society over time. Moving forward, **there is a need to consider society under the assumption of coexistence with COVID-19 and potential future infectious disease.** As such, closed, dense environments should be redesigned to make them open, sparse spaces.
- **There is an urgent need to create more open spaces and digitalize government services.**

## Increased digitalization

- Many people believe the pandemic drove increased digitalization across many areas of daily life, including consumption and workstyles.
- Internet traffic across Japan also nearly doubled.

### 09 Areas perceived as becoming more digitalized



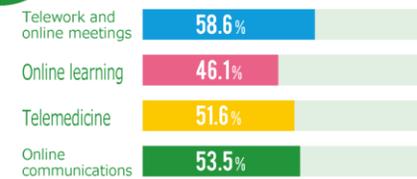
### 10 Changes in internet traffic in Japan



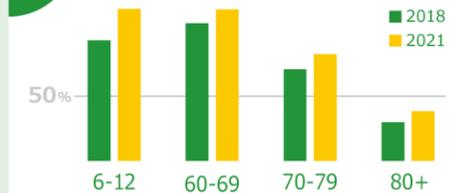
## Impact of digitalization

- Many people wish to see online services become more widely adopted in society.
- Internet usage rates of children and the elderly are rising.

### 11 Things people hope become more widely adopted



### 12 Internet usage trends by age group



- Telework adoption rates have risen significantly nationwide, and the adoption rate in Tokyo's 23 special wards exceeds the national average.
- Train ridership during peak commuting hours continues to decline, contributing to reduced congestion.

### 13 Telework rate



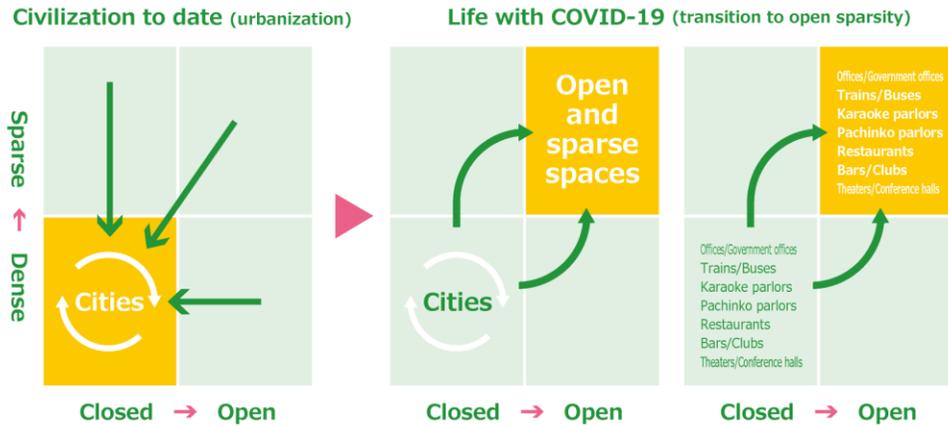
### 14 Changes in rush-hour train usage



## Developing open and spacious cities

- Cities must transition from closed, dense cities into open, sparse cities to coexist with COVID-19.
- Japan has a low adoption rate of cashless payments compared to other leading countries.
- People have a strong desire for cities to enhance outdoor areas, in addition to spaces for walking and biking.

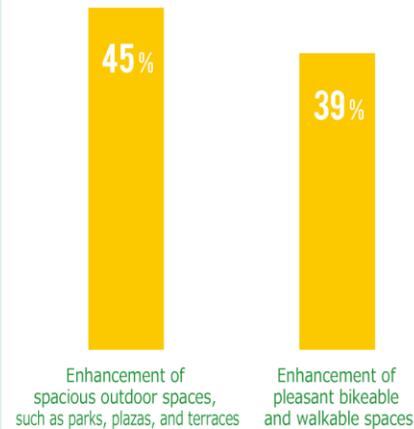
### 15 Visualization of urbanization and transition to open sparsity



### 16 Cashless payment usage rates by country



### 17 City initiatives requested by residents

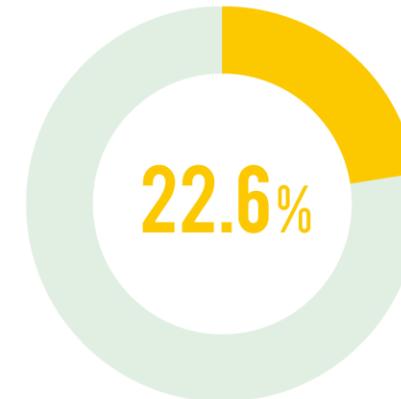


## Impact of self-quarantine on close contacts of individuals who tested positive for COVID-19

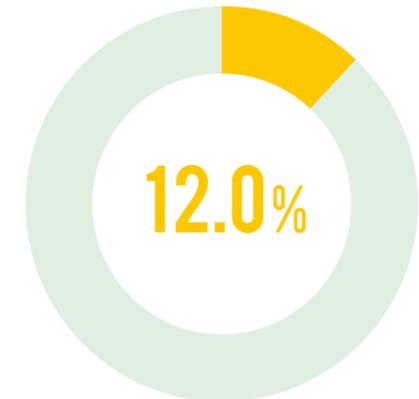
- Over 20% of close contacts experienced a decline in income during self-quarantine, and over 10% experienced a decline in income after self-quarantine.
- Roughly 8.5% of close contacts quit their jobs during or after their self-quarantine

### 18 Income changes

Income decreased during self-quarantine period (income per day)



Income decreased in the month following self-quarantine period (monthly income)



### 19 Percentage of close contacts who quit their jobs



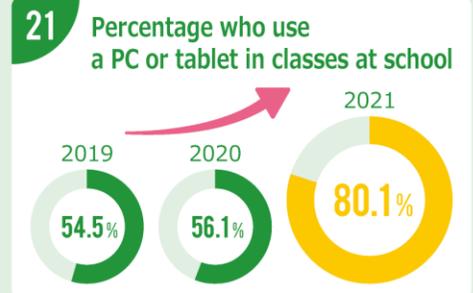
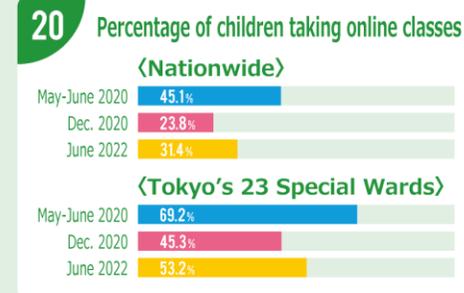
# Theme 3 COVID-19 Children and Education

## The impacts of COVID-19 on children and education include the following.

- Although Japan ranked last among OECD countries in terms of time spent using digital devices in the classroom, during the pandemic, **the goal of providing one computing device for each student was realized helping online learning to become more prevalent.**
- **Tablet based learning in classroom rose,** and the number of students who find tablet based learning fun has also risen.
- **The amount of time spent with family rose for both men and women with children** due to the impact of telework.
- However, **the percentage of parents and guardians with negative feelings related to parenting increased,** such as becoming unsure of how to handle child-related issues.
- In terms of changes in the environment for children, **screen time is increasing.**
- Child suicides are on an increasing trend and the absenteeism rate has increased. **It is thought that calls for help from children are emerging as problematic behaviors and absenteeism.**
- **A correlation can be seen between a reduction in school activities and a decline in children's mental health,** such as increased dissatisfaction and depressive tendencies. This shows that the fun aspects of school were sacrificed.
- Possible long-term effects of the pandemic period include changes in the educational environment due to digitalization, changes in the skills needed to be successful, and changes in the way families and the community interact. **The impacts of COVID-19 on children must be closely watched going forward.**

## Changes in online learning for children

- During the first wave of the pandemic, online learning advanced greatly. Later on, the percentage of children using online learning declined. However, it is still on an upward trend. Use of online learning in Tokyo's 23 special wards exceeds the national average.
- The use of PCs and tablets in the classroom is also increasing.



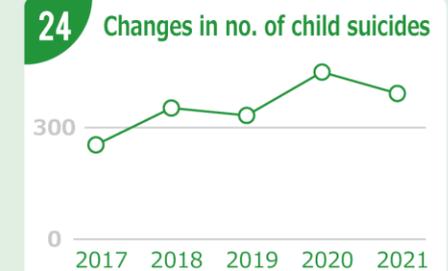
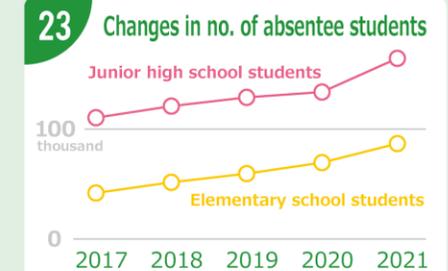
## Changes in the environment for children

- Children's screen time\* is increasing.
- \*Amount of time spent by a child watching a screen at home (e.g., TV, smartphone, game device)



## Child absenteeism and suicides

- Absenteeism is on the rise.
- Suicide is on the rise.

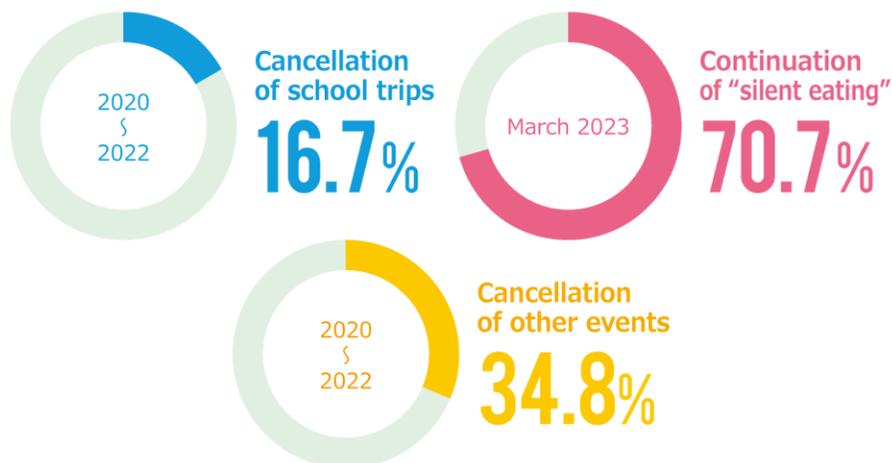


## Changes in the educational environment for children

- Due to the ongoing cancellation of school activities, dissatisfaction with school life increased among children, leading to a decline in overall satisfaction.

### 25 Impact of school event cancellation on children

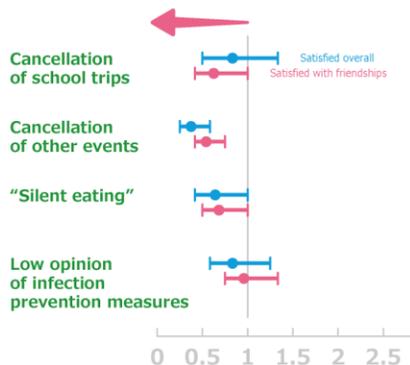
#### School event cancellation rates



#### Increase in depressive tendencies and dissatisfaction



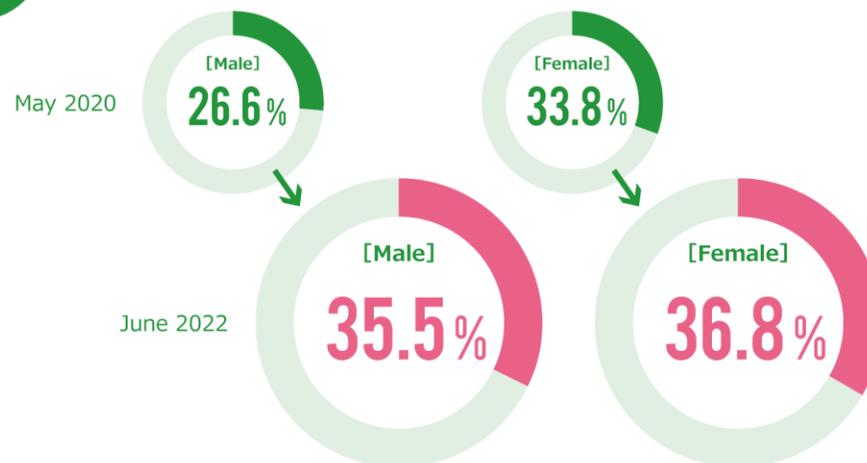
#### Decline in the number of those responding "very satisfied"



## The situation at home

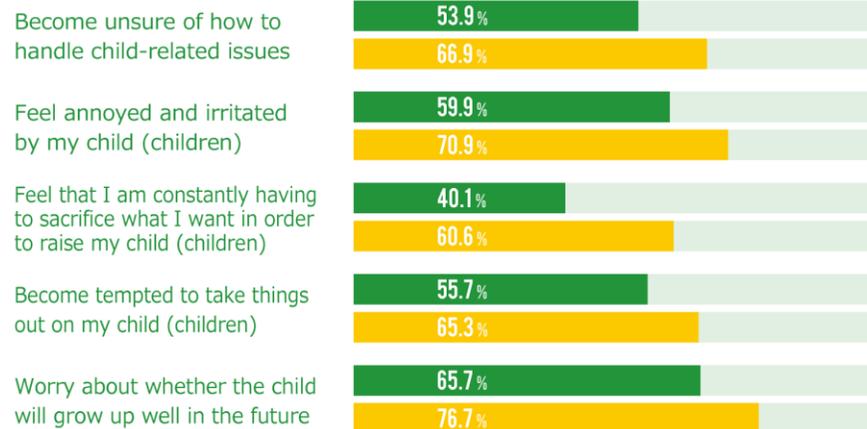
- Time spent with family increased for many men and women with children.
- The percentage of parents and guardians with negative feelings about parenting is increasing.

### 26 Percentage of individuals who experienced an over 5% increase in time spent on housework and childcare



### 27 Increase in negative feelings about parenting

Total percentage of those who responded "Often" or "Sometimes"  
■ 2015 ■ 2022



- COVID-19 had a major impact not medical and healthcare fields, but **on society as a whole**.
- **Changes in society emerged that should be continued and developed as a legacy, including digital transformation, online learning, and the diversification of work styles, including the use of telework.**
- Even after COVID-19 has been downgraded to a class 5 infectious disease, **the following perspectives are necessary to channel the knowledge and experience obtained to date into making Tokyo a sustainable city and achieving a sustainable recovery.**

## Theme COVID-19 1 Society and the Economy

- Bring together the strengths of Tokyo companies to **enable the city to lead the recovery and growth of the Japanese economy.**
- **Grow inbound travel by promoting the "Tokyo brand"** which was elevated by praise for the handling of COVID-19.



## Theme COVID-19 2 Daily Life and Digitalization

- **Maintain and further develop positive impacts such as the spread of digital transformation (DX) and telework.**
- **Promote open, spacious urban development and the creation of a DX infrastructure** to realize a city that is also resistant to infectious disease.



## Theme COVID-19 3 Children and Education

- **Leverage online learning, which progressed during the pandemic, and other methods** to improve the learning of children.
- **Reduce the impacts on children and families raising children** to make Tokyo a city filled with the smiling faces of children.



### Additional key perspectives to be applied to each of the three themes:

- **Promote social change in line with the change in the mindset of the people** brought about by the downgrade of COVID-19 to a class 5 infectious disease.
- **Utilize the wisdom obtained from keeping the number of infections low and delivering a successful Tokyo 2020 Games** during the pandemic.
- **Achieve a sustainable recovery in Tokyo and have that expand throughout Japan.**

**Utilizing the results of this analysis, Tokyo aims to reclaim its vibrancy as soon as possible.**

## Sources

<b>01</b>	<b>Japan's nominal economic growth rate</b>	Cabinet Office, "SNA (National Accounts of Japan)"	<b>15</b>	<b>Visualization of urbanization and transition to open sparsity</b>	Adapted from Based on "It's Time to Hear the Whole Story, Part 2" and "The Future of Open Sparsity" provided by Dr. Ataka
<b>02</b>	<b>IMF economic growth projections</b>	IMF, "World Economic Outlook"	<b>16</b>	<b>Cashless payment usage rates by country</b>	Payments Japan Association, "Cashless Roadmap 2022"
<b>03</b>	<b>Yen fluctuations and Japan's exports/imports</b>	Adapted from material provided by Mr. Motani compiled from the Ministry of Finance's "Balance of Payments," etc.	<b>17</b>	<b>City initiatives requested by residents</b>	Ministry of Land, Infrastructure, Transport and Tourism, "Survey on Lifestyle Behaviors Under the Impact of COVID-19 (Part 2)"
<b>04</b>	<b>Japan's balance of payments</b>	Adapted from material provided by Mr. Motani compiled from the Ministry of Finance's "Balance of Payments," etc.	<b>18</b>	<b>Income changes</b>	Adapted from "Impact of Close Contact Isolation on Employment" provided by Dr. Takaku, Based on COVID-19 AI & Simulation Project (Cabinet Secretariat)
<b>05</b>	<b>Change in Japan real consumption activity index</b>	Bank of Japan, "Consumption Activity Index"	<b>19</b>	<b>Percentage of close contacts who quit their jobs</b>	Adapted from "Impact of Close Contact Isolation on Employment" provided by Dr. Takaku, Based on COVID-19 AI & Simulation Project (Cabinet Secretariat)
<b>06</b>	<b>Change in number of international visitors to Japan</b>	Japan Tourism Agency, "Inbound and Outbound Travel Trends"	<b>20</b>	<b>Percentage of children taking online classes</b>	Cabinet Office, "Fifth Survey on Changes in Lifestyle Awareness and Behavior Under the Impact of COVID-19"
<b>07</b>	<b>COVID-19 deaths and economic growth rates</b>	Adapted from material provided by Mr. Motani compiled from IMF forecasts of real GDP growth, Johns Hopkins University data on COVID-19 deaths by country, and the UN Population Division's 2017 projections of population by country	<b>21</b>	<b>Percentage who use a PC or tablet in classes at school</b>	Institute of Social Science, The University of Tokyo / Benesse Education Research and Development Institute, "2021 Parent-Child Survey on Children's Lives and Learning"
<b>08</b>	<b>Percentage of those who believe that there is 5% or higher risk of severe illness or death</b>	Adapted from "Subjective COVID-19 Risk Assessment" provided by Dr. Takaku, Based COVID-19 AI & Simulation Project (Cabinet Secretariat)	<b>22</b>	<b>Increase in screen time</b> (Percentage of those with 2 hours or more)	Japan Sports Agency, "Results of the FY 2021 National Survey on Physical Fitness, Athletic Ability, and Exercise Habits (Summary)"
<b>09</b>	<b>Areas perceived as becoming more digitalized</b>	Cabinet Office, "Fifth Survey on Changes in Lifestyle Awareness and Behavior Under the Impact of COVID-19"	<b>23</b>	<b>Changes in no. of absentee students</b>	Ministry of Education, Culture, Sports, Science and Technology, "Summary of the Results of the FY 2021 Survey on Student Disciplinary Issues Including Problematic Behavior and Absenteeism"
<b>10</b>	<b>Changes in internet traffic in Japan</b>	Ministry of Internal Affairs and Communications, "2022 White Paper on Information and Communications in Japan"	<b>24</b>	<b>Changes in no. of child suicides</b>	Ministry of Education, Culture, Sports, Science and Technology, "Summary of the Results of the FY 2021 Survey on Student Disciplinary Issues Including Problematic Behavior and Absenteeism"
<b>11</b>	<b>Things people hope become more widely adopted</b>	Tokyo iCDC Risk Communication Team, "Results of the February 2023 Tokyo Citizen Survey"	<b>25</b>	<b>Impact of school event cancellation on children</b>	Takaku, Shobako, and Nakata (2023) "Three Years of COVID-19 School Restrictions and Children's Mental Health in Japan" (soon to be published)
<b>12</b>	<b>Internet usage trends by age group</b>	Ministry of Internal Affairs and Communications, "Communications Usage Trend Survey"	<b>26</b>	<b>Percentage of individuals who experienced an over 5% increase in time spent on housework and childcare</b>	Cabinet Office, "Fifth Survey on Changes in Lifestyle Awareness and Behavior Under the Impact of COVID-19"
<b>13</b>	<b>Telework rate</b>	Cabinet Office, "Fifth Survey on Changes in Lifestyle Awareness and Behavior Under the Impact of COVID-19"	<b>27</b>	<b>Increase in negative feelings about parenting</b>	Benesse Education Research and Development Institute, "Sixth Survey on the Lives of Infants and Young Children (Digest Edition)"
<b>14</b>	<b>Changes in rush-hour train usage</b>	Preliminary data on the number of passengers passing through the automatic ticket gates of the four Toei Subway lines, collected by the Bureau of Transportation, Tokyo Metropolitan Government			

# COVID-19 × TOKYO



TOKYO  
METROPOLITAN  
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