Introduction to the special issue “The Impacts of COVID-19 on the Japanese Economy”

Yasushi Iwamoto¹ · Daisuke Miyakawa² · Fumio Ohtake³

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The Japanese economy has been experiencing serious difficulties during the COVID-19 pandemic. The potential effects of the pandemic, which range from consumption, employment, to firm activities, have been substantial from the outset. As the overall impact has gradually materialized, a large number of economists have conducted research on multiple effects of COVID-19 on the Japanese economy and have delivered helpful insights into how to counteract its economic challenges.

Along with this rapid accumulation of academic research, the Japanese Economic Association established the COVID-19 Working Group (WG) in August 2020 to facilitate the progress of this important research area. At the time of this writing, the WG has provided the list of almost 130 scientific papers to the JEA website (<https://covid19.jeaweb.org/>) and held a special session at the JEA Spring Meeting in May 2021.

Given this background, the WG has put together this special issue, which is the first of two special issues on COVID-19¹ and has assigned three members to be guest editors. As the COVID-19 pandemic has affected various dimensions of the Japanese economy, this special issue “The Impact of COVID-19 on the Japanese Economy” comprises six studies that cover diverse topics, such as the macroeconomy, individual behavior, consumption, labor market, education, and firm activities, all of which address important economic issues in the context of the current pandemic.

While these six studies cover different aspects of the relation between COVID-19 and the Japanese economy, we can highlight some common features that they share. First, most of the studies use unique granular data that allow the authors to disentangle the unconditional and conditional (heterogeneous) effects of COVID-19 on

¹ The other special issue will cover the macroeconomic analyses that use an epidemiology model of infectious disease known as the “SIR model”.

✉ Daisuke Miyakawa
dmiyakawa@hub.hit-u.ac.jp

¹ Graduate School of Economics, University of Tokyo, Tokyo, Japan

² Hitotsubashi University Business School, Tokyo, Japan

³ Center for Infectious Disease Education and Research, Osaka University, Osaka, Japan

economic activities. In this sense, this special issue helps readers not only to quickly grasp the important body of studies on COVID-19 in Japan but also to be exposed to a showcase of empirical studies that use various alternative data and traditional datasets. Second, all of the studies are tied closely to the ongoing discussion on policy implementation such as requests to stay at home, support for individuals, unemployment insurance, and so on. In this sense, this special issue provides an important background for current and future policy discussions.

The six studies in this special issue are as follows: Watanabe and Yabu's "Japan's voluntary lockdown: further evidence based on age-specific mobile location data" identifies the importance of voluntary preventive behavior. Since the probability of infection for a typical person depends on the prevalence rate in a community, people have become more cautious when the press announces higher numbers of the newly infected. Using the daily mobile data recorded on mobile phone base stations, their previous study (Watanabe and Yabu 2020) found that the number of newly infected strongly affected mobility and succeeded in separating this effect from the state of emergency. Their study in this issue finds the behavioral change is different between the young and the old. The voluntary seclusion on weekends and holidays is stronger for the old, who are at higher risk for this infectious disease. In contrast, the effect of interventions that enforce staying at home has a greater effect on the young. They have also found that voluntary preventive behavior has become weaker since the summer of 2020. This finding may be a worrisome symptom in the long term.

Sakaki, Kurokawa and Ohtake's "effective but fragile? Responses to repeated nudge-based messages for preventing the spread of COVID-19 infection" addresses the effectiveness of nudge-based messages. Since the legislation does not allow stay-at-home requests to be backed by strong legal penalties, a nudge is an important tool to empower the government's requests and guidance. The authors have investigated what kind of messages encourage people's preventive behaviors by conducting an online experiment that randomly assigns several types of messages. They have found that not all altruistic messages are uniformly effective. While a gain-framed altruistic message can successfully reduce people's frequency of going out and contacting others, the message can have an adverse effect of worsening the compliance level of infection-prevention behaviors for some subgroup. Their findings indicate that policymakers should carefully scrutinize the message elements and wording while accounting for these possible adverse effects.

Kaneda, Kubota, and Tanaka's "Who spent their COVID-19 stimulus payment? Evidence from personal finance software in Japan" focuses on the issue of consumption behavior during the COVID-19 pandemic. Specifically, the authors use high-frequency data from management software for personal financing in a natural experiment setup provided by a cash transfer program where the timing of the payment to households varied unexpectedly to estimate the marginal propensity to consume (MPC). They report that households certainly increase expenditure as a response to a cash transfer. Most importantly, they also empirically show that the MPC is heterogeneous and depends on the status of households' liquidity constraints. They report in the study that the responses to the cash transfer vary with households' attributes. This result indicates the cash transfer program could be redesigned to more effectively mitigate the economic (esp., consumption) effect of the pandemic.

Fukai, Ichimura and Kawata's "describing the impacts of COVID-19 on the labor market in Japan until June 2020" analyzes the dynamics of employment status during the COVID-19 pandemic in Japan using the Labor Force Survey, which is a large-scale governmental statistical survey in Japan. The study is unique in that it uncovers the heterogeneous effects of the attributes of the survey respondents. They find that the effect of COVID-19 has concentrated on certain respondents: in April 2020, the employment rate of the bottom 30% of workers decreased; while in May and June, it was the bottom 5% of workers. The characteristics of the employees affected by COVID-19 were students working part-time in hotels, restaurants, and services and the unemployed. This study provides empirical evidence of the impact of COVID-19 on the Japanese labor market and has implications for policy responses.

Ikedo and Yamaguchi's "online learning during school closure due to COVID-19" examines the effect of the temporary closures of junior high, and high schools throughout Japan from March 2 to the end of May 2020 on their students' study time and the number of messages from teachers to them about online learning services. They find that study time and teacher messages increased during the closure and returned to normal levels when the closure ended. Their findings indicate the effectiveness of online learning services during school closures.

Chen, Senga, and Zhang's "measuring business-level expectations and uncertainty: survey evidence and the COVID-19 pandemic" examines the change in firm-level subjective uncertainty due to COVID-19 by using a unique firm-level survey conducted in Japan. The authors report the positive correlation between uncertainty and the volatility in the past growth of firms, and the large heterogeneity in that uncertainty. Then, they empirically show that the level of uncertainty is closely tied to the status of firms' international trade or foreign direct investment. As the most important result, they highlight that the COVID-19 pandemic led to a substantial increase in the uncertainty, and this effect is especially large for firms exposed to China through international trade and foreign direct investment. Given that uncertainty could largely drive firm activities such as investment and employment, it is quite important for government sector to understand how the pandemic has affected uncertainty, which this study provides.

As the guest editors of this special issue, we would like to thank Professor Hidehiko Ichimura, the editor of *The Japanese Economic Review*, for providing this publishing opportunity. We also greatly appreciate anonymous referees for their productive comments and suggestions that were necessary to ensure the quality of the studies. We hope this special issue provides a summary of the latest academic research on the COVID-19 pandemic in Japan and contributes to ongoing academic and policy discussions.

Reference

- Watanabe, T., & Tomoyoshi, Y. (2020). Japan's voluntary lockdown. *Covid Economics: Vetted and Real-Time Papers*, 46, 1–31.

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