## Pandemic Assumptions and Reality in Japan

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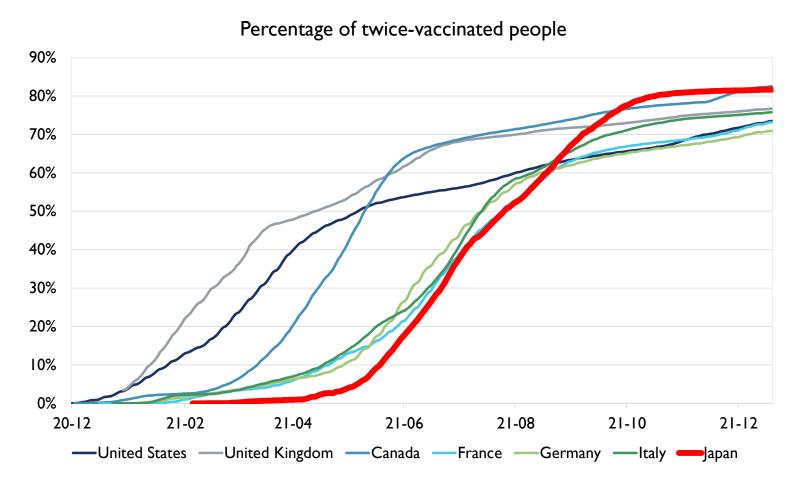
## Assumption before vaccines

With effective vaccines, the Covid-19 crisis will be a transitory (albeit large and very persistent) shock to the Japanese economy.

## Reality after vaccines

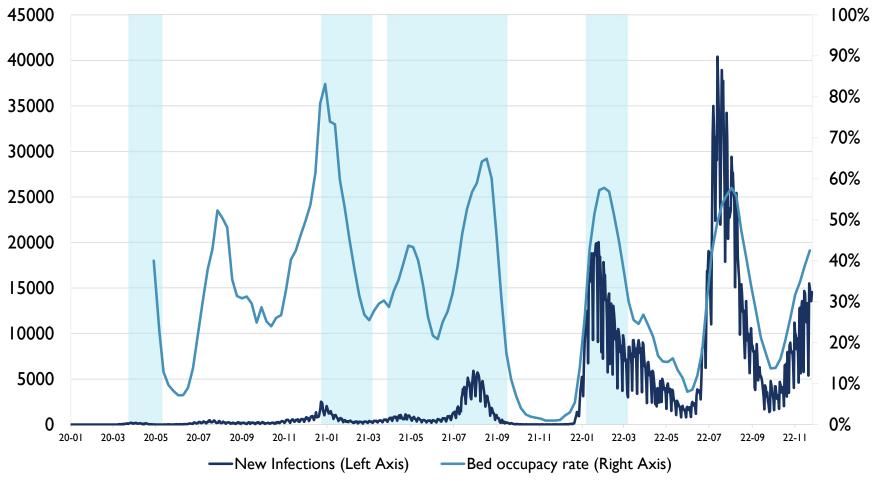
- Various NPIs have persisted after vaccine deployment.
- Data so far suggest that the pandemic shock is likely to leave permanent scars on the Japanese economy.

## Japan several months late in distributing the first two doses to its citizens, relative to other G7 countries.



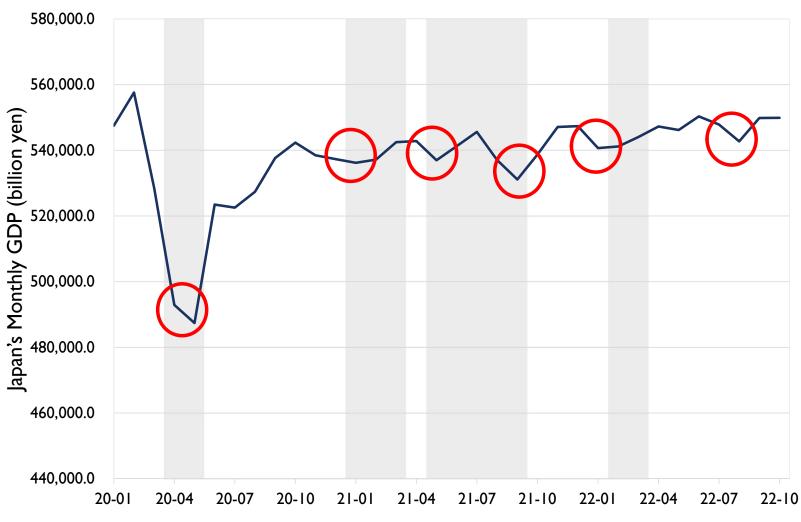
Mathieu, E., et al. (2021): A Global Database of COVID-19 Vaccinations. Nature Human Behavior

## 8 infection waves in Tokyo (currently in the middle of 8th wave).



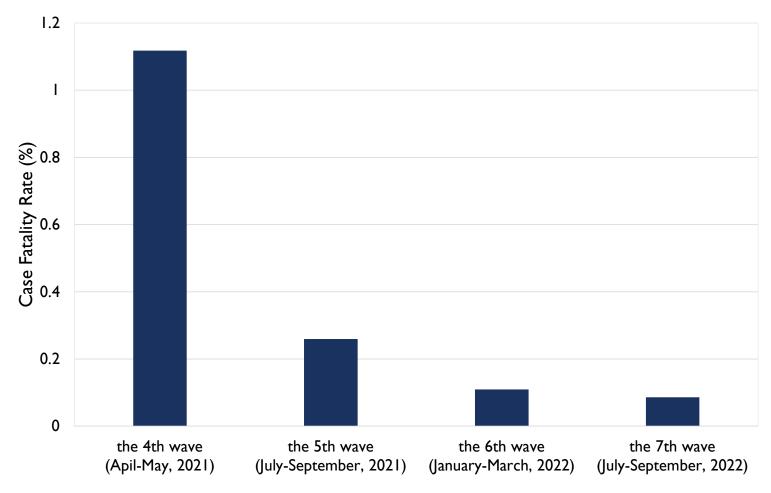
COVID-19 Standard Dataset, 2022, Taisuke Nakata & Wataru Okamoto, <a href="https://docs.google.com/spreadsheets/d/IOOwRFo5sh\_kaDQF79BdpAHhl\_WXXcXpV5tj4NXYQBHk/edit">https://docs.google.com/spreadsheets/d/IOOwRFo5sh\_kaDQF79BdpAHhl\_WXXcXpV5tj4NXYQBHk/edit</a> Ministry of Health, Labour and Welfare, <a href="https://covid19.mhlw.go.jp/">https://covid19.mhlw.go.jp/</a>

#### Infection waves slowed the economic recovery even after vaccines.



Japan Center for Economic Research, <a href="https://www.jcer.or.jp/">https://www.jcer.or.jp/</a>

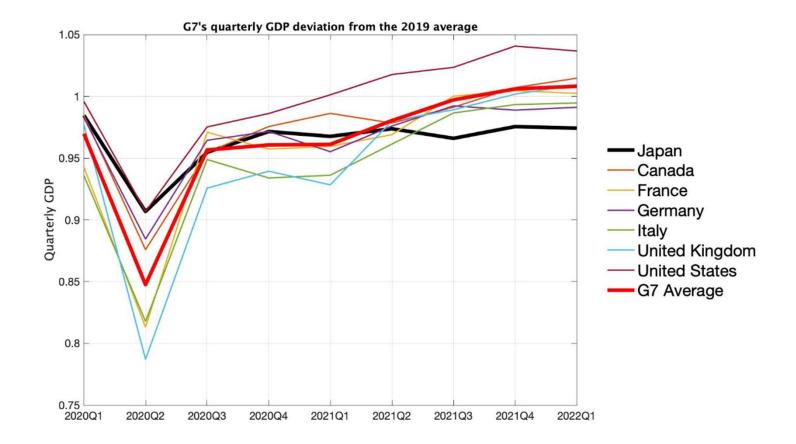
### ...even though case fatality rate has declined substantially since summer 2021.



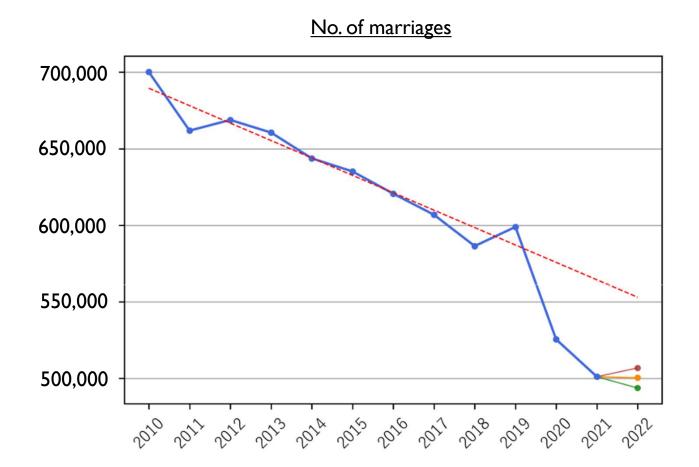
COVID-19 Standard Dataset, 2022, Taisuke Nakata & Wataru Okamoto

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## Small drop in GDP in 2020. Slow recovery since then.

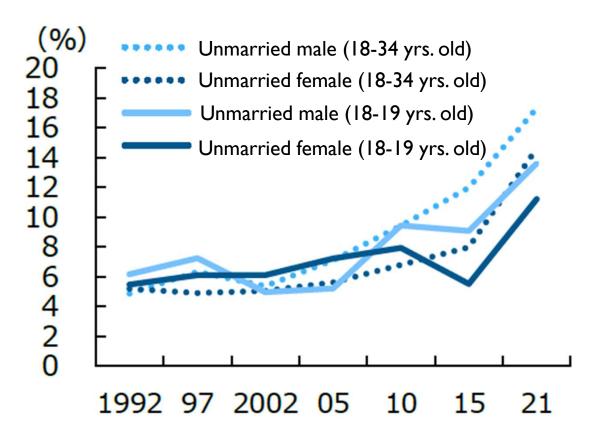


#### A drop in marriage in 2020-2022 will likely be a permanent negative shock to population.



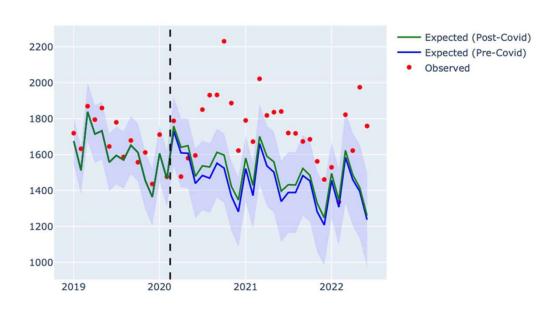
An increase in the unwillingness to marry will also be likely a permanent negative shock to population.

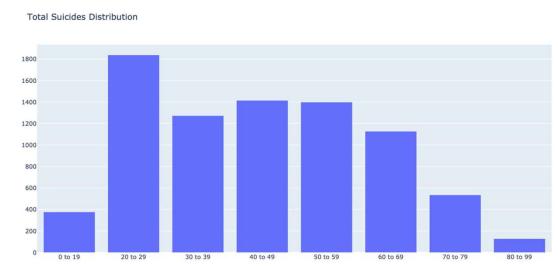
#### % of unmarried people not interested in marriage



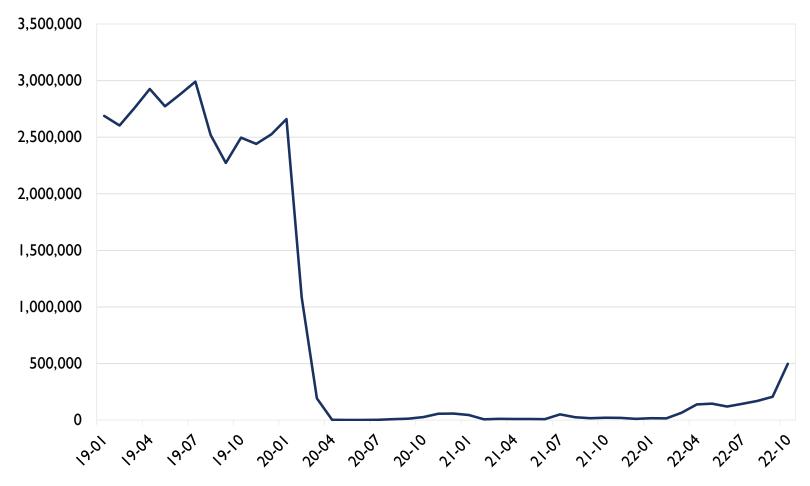
#### Excess suicides of around 8,000, cumulatively. Largest for 20s.

#### Total Observed Versus Expected Number of Suicides



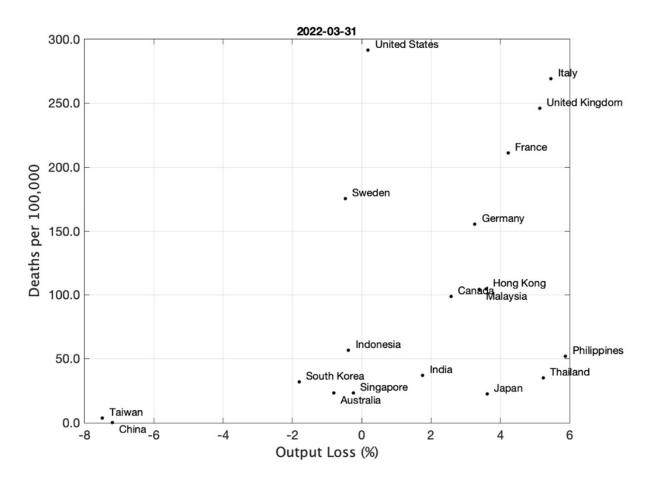


## No. of foreign visitors to Japan remains very low even in 2022.



Japan National Tourism Organization: https://www.japan.travel/en/

# Fewer Covid-19 deaths, but comparable economic damage on average through 2022:Q1.



#### High "Willingness-to-Pay" to reduce Covid-19 deaths in Japan.

Figure 5: Conditional trade-off curve in Japan

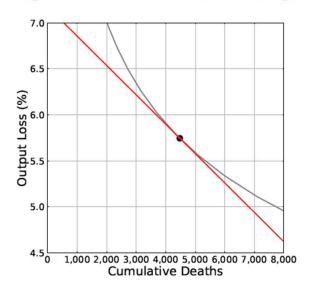


Figure 6: Conditional trade-off curves

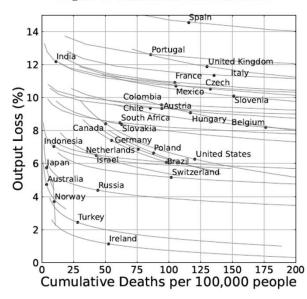


Table 1: MRS from monthly GDP data (in million USD of 2015)

Country	MRS	Country	MRS	Country	MRS
Norway	105.54	Poland	0.44	Czech	0.14
Japan	13.61	Austria	0.37	Italy	0.14
Australia	13.23	Turkey	0.32	Russia	0.13
Canada	2.19	France	0.27	India	0.1
Germany	1.70	Belgium	0.26	Chile	0.07
Netherlands	1.45	Hungary	0.26	Mexico	0.05
Israel	1.08	Spain	0.24	South Africa	0.05
United States	1.01	Slovakia	0.23	Brazil	0.04
Ireland	0.90	Indonesia	0.20	Colombia	0.03
United Kingdom	0.54	Slovenia	0.18		
Switzerland	0.49	Portugal	0.16		

Table 2: Distribution of MRS (in million USD of 2015)

Mean	Variance	50%	5%	95%
4.69	361.01	0.26	0.05	13.42

\*Fujii et al. (2022): Understanding Cross-Country Heterogeneity in Health and Economic Outcomes during the COVID-19 Pandemic; A Revealed-Preference Approach <a href="https://www.carf.e.u-tokyo.ac.jp/wp/wp-content/uploads/2022/06/F541.pdf">https://www.carf.e.u-tokyo.ac.jp/wp/wp-content/uploads/2022/06/F541.pdf</a>