

Discussion of
“The Puzzling Behavior of Spreads during Covid”
Fourakis and Karabarbounis (2024)

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Fourakis and Karabarbounis (2024)

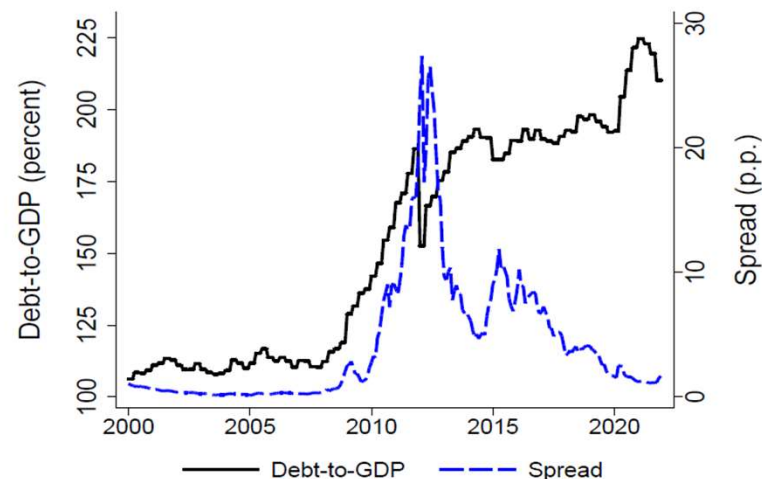


Figure 1: Greek Debt-to-GDP Ratio and Sovereign Spread

- Debt-to-GDP ratio increased a lot since 2009, and spread rose a lot at the same time.
- Debt-to-GDP ratio increased quite a bit in 2020, but spread remained low.
- The authors build a quantitative model that can explain these patterns.
 - A standard small-open-economy model of long-term debt and default
 - + 4 elements (“official lenders,” “non-traded sector,” “two types of households,” and “lockdown constraints on labor supply and non-tradable consumption.”)

Fourakis and Karabarbounis (2024)

Table 4: Performance of Model during Covid

Year	Statistic ($\times 100$)	Data	Model, $\bar{\ell}, \bar{c}_N$	Model, $\bar{\ell}$	Model, \bar{c}_N
2020	$\log y_{20} - \log y_{19}$	-8.1	-8.1	-6.9	1.3
	$\log c_{20} - \log c_{19}$	-4.1	-10.5	2.4	-8.9
	$(b_{21} - b_{20})/y_{19}$	12.0	12.0	12.3	3.0
	$(T_{20} - T_{19})/y_{19}$	6.1	9.0	10.0	3.6
	$(a_{21} - a_{20})/y_{19}$	4.4	3.9	-5.2	1.9
	$\text{spread}_{20} - \text{spread}_{19}$	0.1	0.4	0.4	0.0

- The model is successful in capturing “Debt-to-GDP ratio increased quite a bit in 2020, but spread remained low.”
 - Quantitative success.
 - Mechanism is also plausible.
- Counterfactual simulation shows that **the expected lockdown duration** is key.

Table 5: Counterfactuals

		$(100 \times \Delta \log)$				$(\Delta \text{ p.p.})$	
		y	c	b	T	c^o/c^h	Spread
(relative to 2019 values)							
	Data 2020	-8.1	-4.1	12.0	6.1		0.1
	Model 2020	-8.1	-10.5	12.0	9.0	-19.5	0.4
(relative to 2020 model)							
12.	$\pi_\ell = 0.85$	0.1	-8.8	-7.1	-10.3	24.6	2.4

My comments

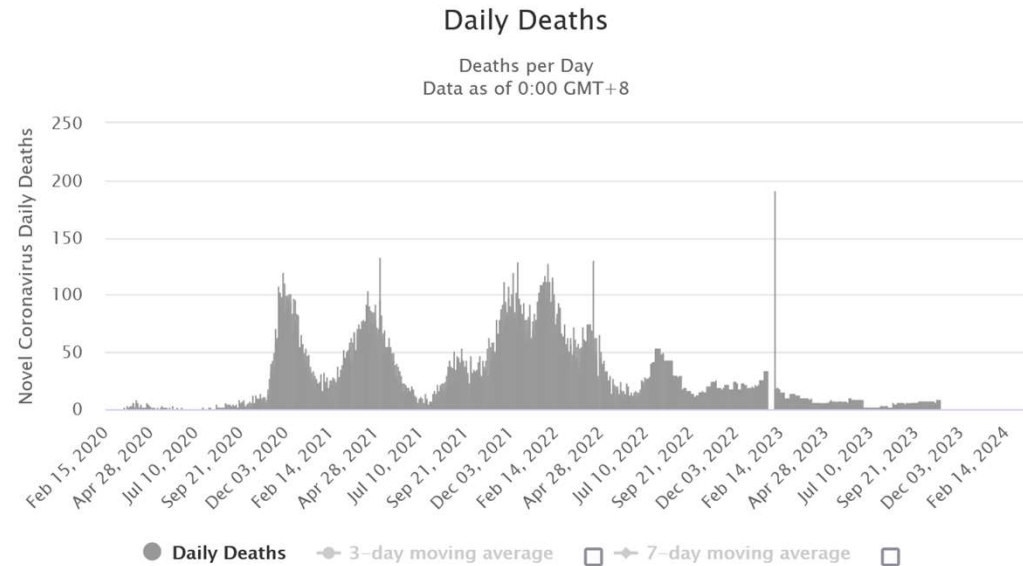
- Time Aggregation

- Time Variation

My comments: Time Aggregation

- COVID-related shocks and policies are of high-frequency.

Daily New Deaths in Greece



- Lockdown policies in Greece.

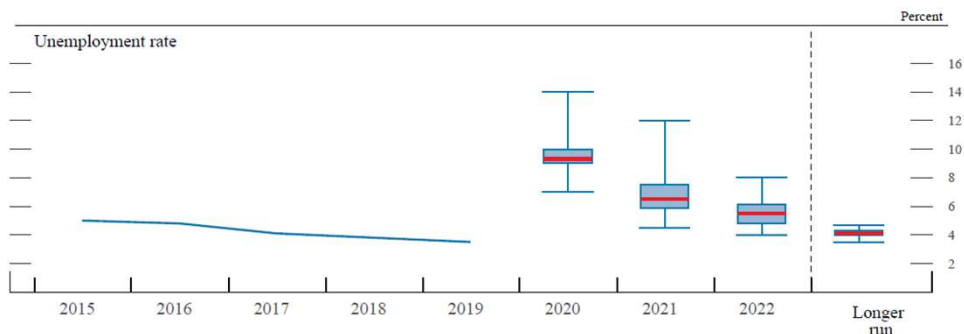
- On 22 March, 2020, the Greek authorities announced restrictions on all non-essential movement throughout the country, starting from 6 a.m. on 23 March.
- Starting from 4 May 2020, after a 42-day lockdown, Greece began to gradually lift restrictions on movement and to restart business activity.
- Greece put in place new measures and restrictions on movement and business activity from 7 November 2020.
- On 12 February 2021, Attica was again placed in lockdown with the closure of lower schools and retail outlets.
- On 9 March. Local lockdowns were imposed in more and more local districts.
- On 4 March, new measures were taken, including placing all of Greece in the highest level of measures.
- On 3 May, the lockdown ended and measures eased, and on 14 May, Greece, including islands, opened for tourists from several countries.

My comments: Time Aggregation

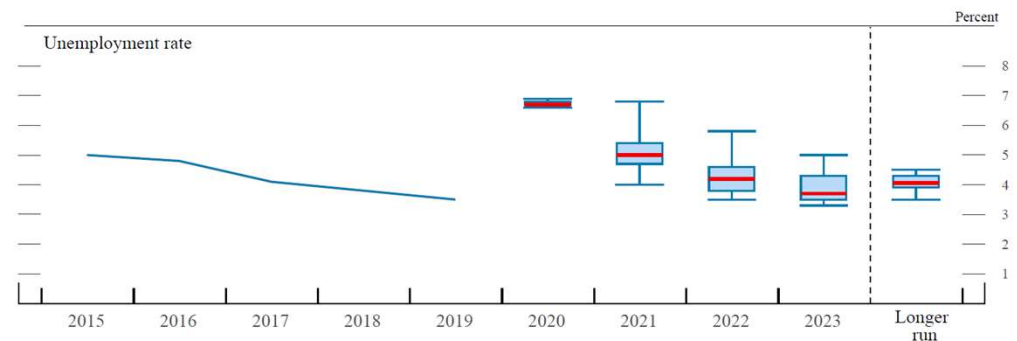
- How to think about “expected lockdown duration in 2020”?
- “Expected lockdown duration” likely changed over the course of 2020.
- In general, the degree of uncertainty changed quite a bit over the course of 2020.
 - Extremely high degree of uncertainty in the initial phase (March-June of 2020)
 - The degree of uncertainty declined quite a bit by the end of 2020.
 - Example: Unemployment-rate projections for the end of 2021
 - 4% to 12% in June 2020 SEP (left)
 - 4% to 6.8% in December 2020 SEP (right)

Federal Reserve’s Summery of Economic Projections

June 2020

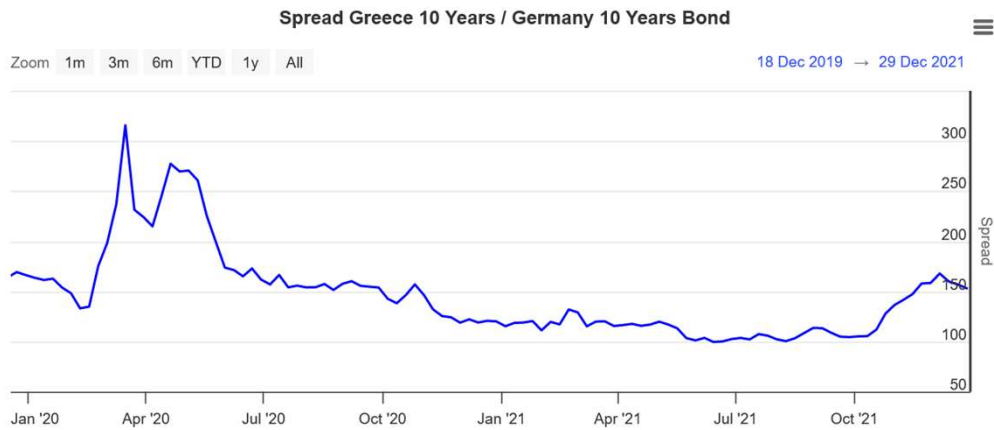


December 2020



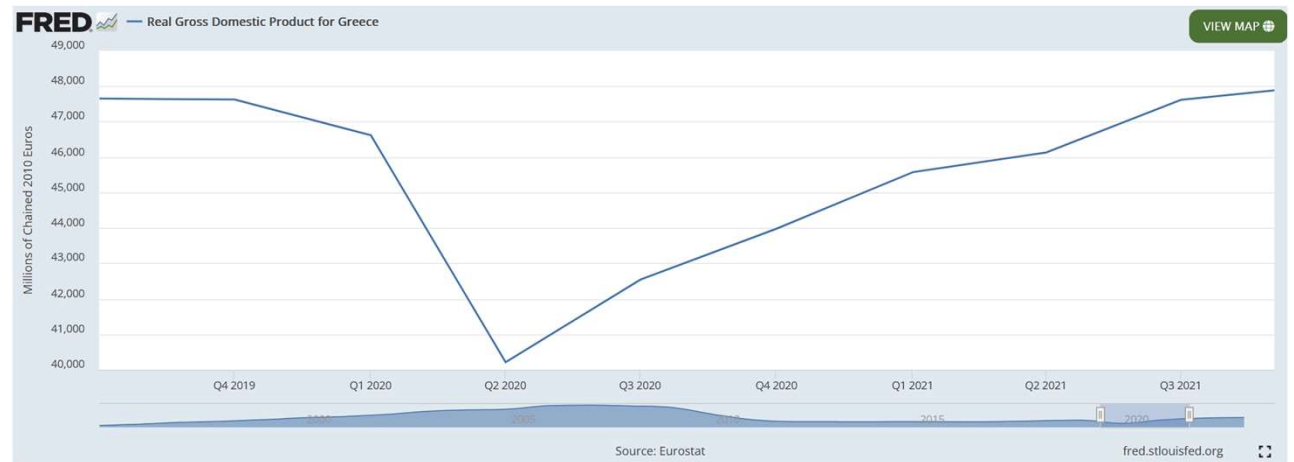
My comments: Time Aggregation

The Greece 10 Years / Germany 10 Years Government Bond spread reached a maximum value of 1865.5 bp (8 July 2015) and a minimum value of 83.05 bp (13 March 2024).



Spread

GDP



- Curious if the model could capture spread and other macro variables even at higher frequency.

My comments: Time Variation

- Over the course of COVID, people learned how to engage in economic activities even under lockdown.
 - The effects of lockdown on labor supply and consumption likely changed over time (note that the intensity of lockdown also changed over time).

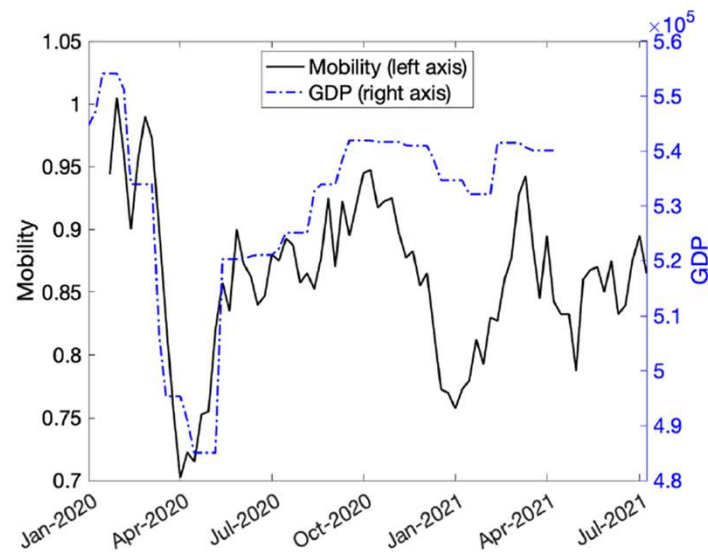
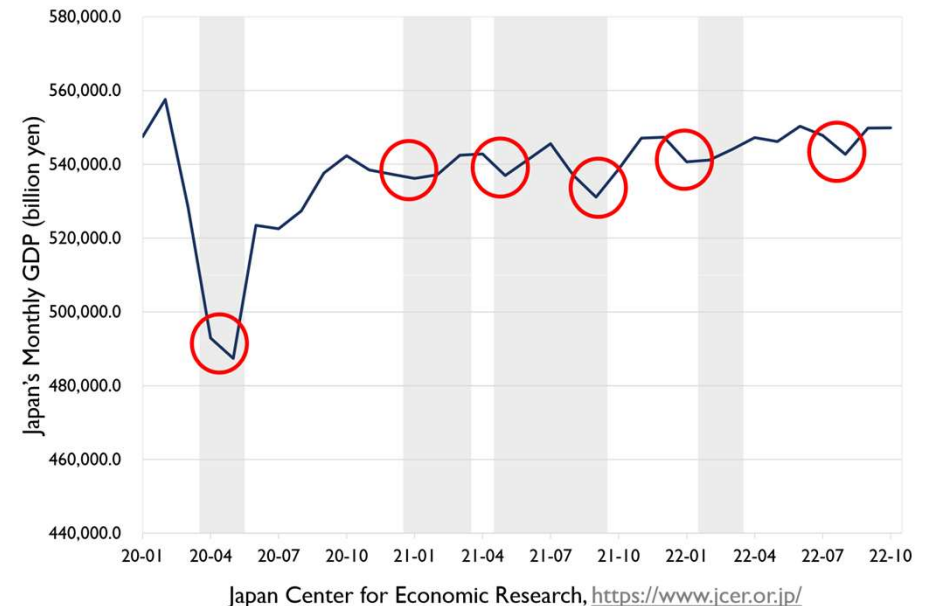


Fig. 2 Mobility and output. Source: Japan Center for Economic Research and Google. As of August 8th, 2021



My comments: Time Variation

- In the paper, COVID constraints on labor supply and consumption seem time-invariant.

Table 3: Parameter Values: Solving the Model

	Value	Explanation		Value	Explanation
θ^o	1.79	productivity, o	β_c	0.97	discount factor, households
θ^h	0.36	productivity, h	β_g	0.96	discount factor, government
χ^o	0.84	disutility, o	μ	0.05	cost of default, constant
χ^h	0.46	disutility, h	μ_N	0.11	cost of default, slope in $\log(z_N)$
σ	1.16	risk aversion	μ_T	0.09	cost of default, slope in $\log(z_T)$
ε	0.56	Frisch elasticity	ζ	0.24	government weight on o
ξ	0.87	progressivity of transfers	α	0.90	complementarity (g, c)
			π_{δ}	0.74	moral hazard
\bar{c}_N	0.71	Covid constraint, consumption	$\bar{\ell}$	0.66	Covid constraint, labor

- Curious to know if alternative assumptions could improve the quantitative performance of the model.