

COVID-19 Epidemic: US Update and Outlook

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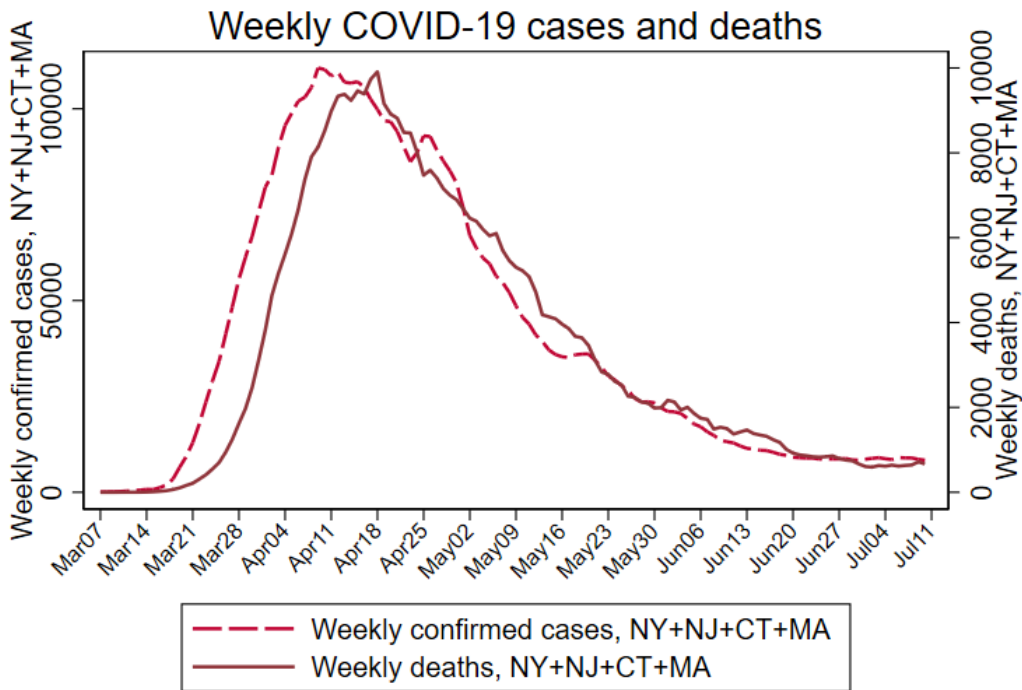
Outline

1. Data as of this morning
2. Estimates of R-effective
3. Short-term forecasts
4. Policy-dependence of medium-term forecasts

July 11, 2020

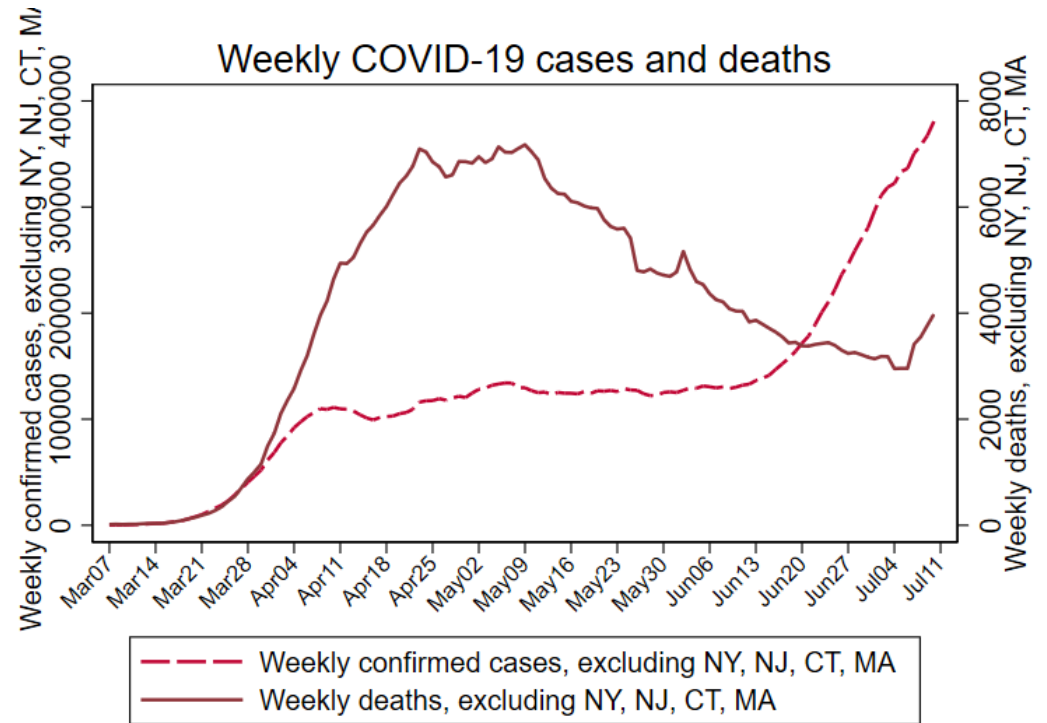
Cases and deaths through July 10

New York, New Jersey, Connecticut, Massachusetts



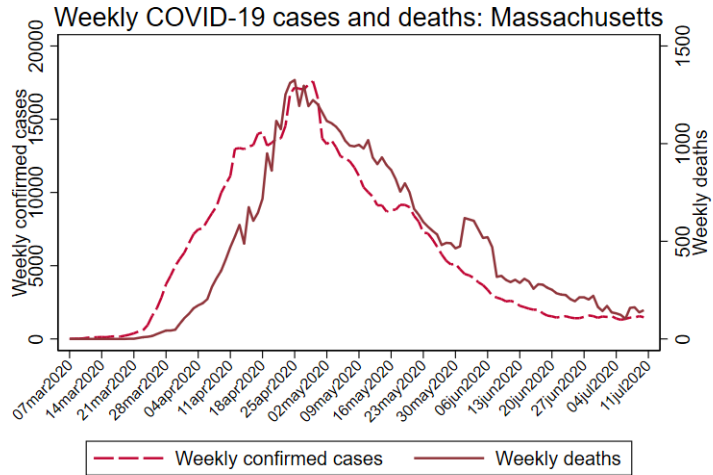
Source: Johns Hopkins University

Rest of U.S.

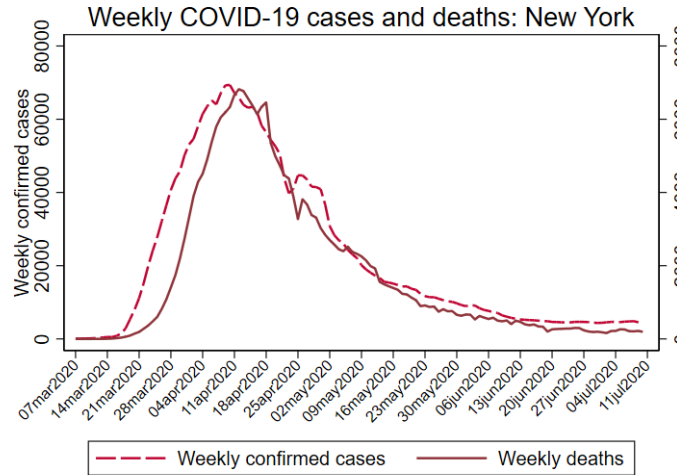


Source: Johns Hopkins University

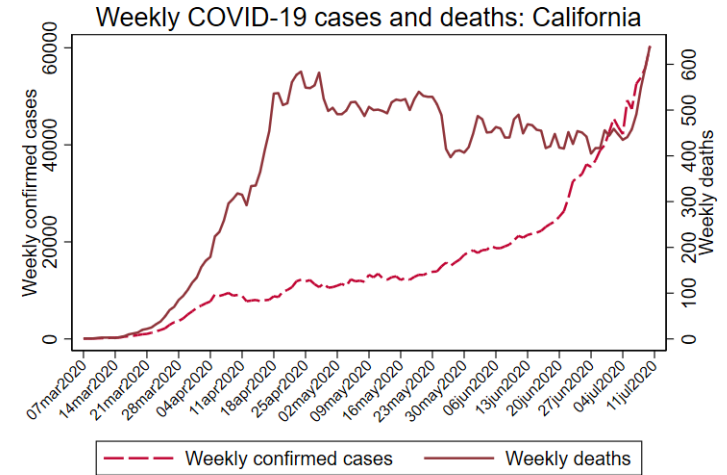
Cases and deaths through July 10



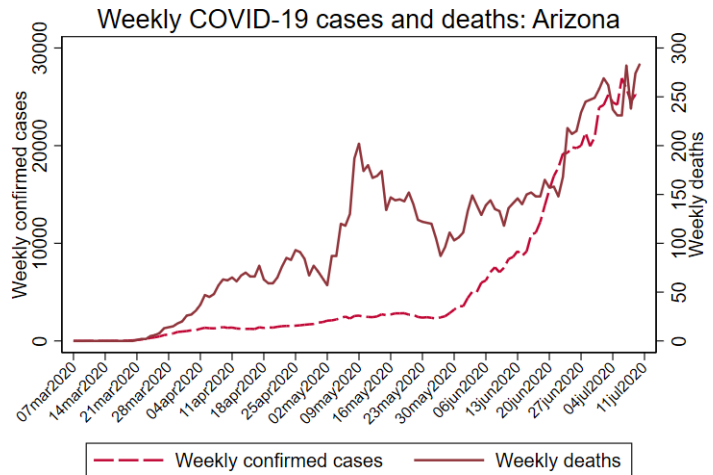
Source: Johns Hopkins University



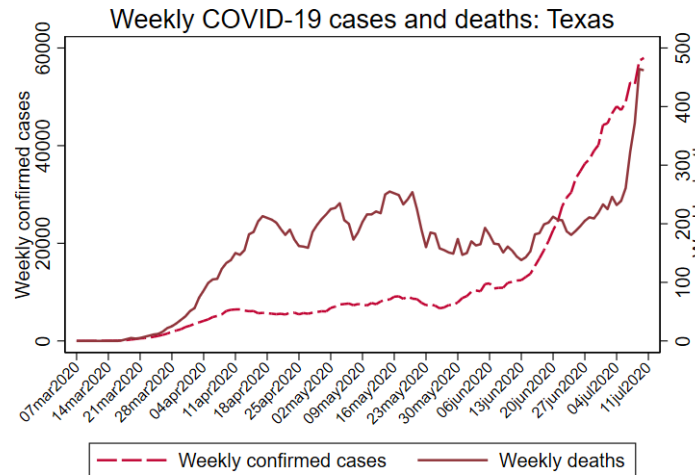
Source: Johns Hopkins University



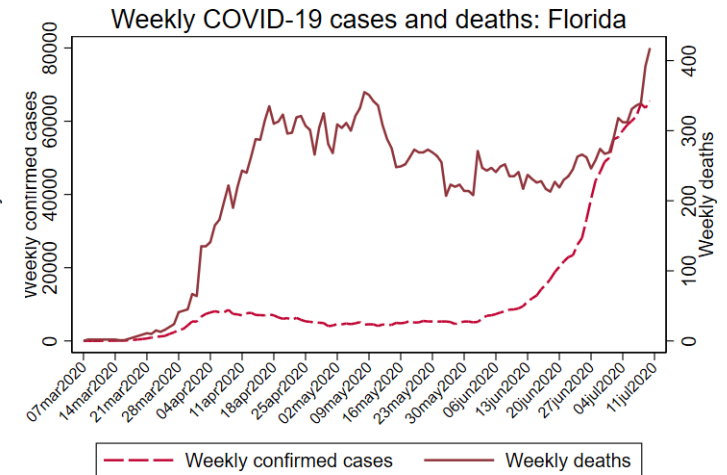
Source: Johns Hopkins University



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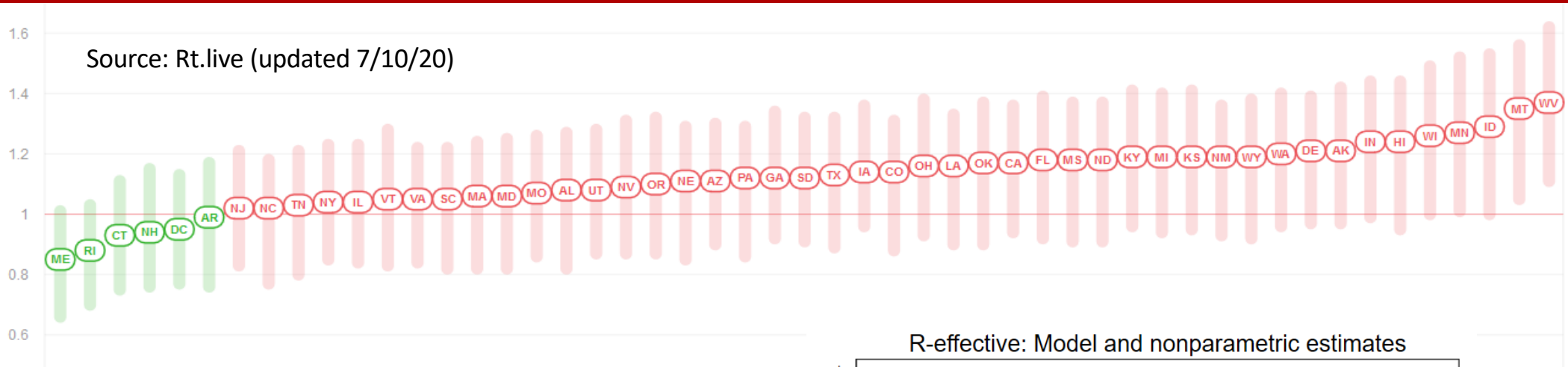


Source: Johns Hopkins University



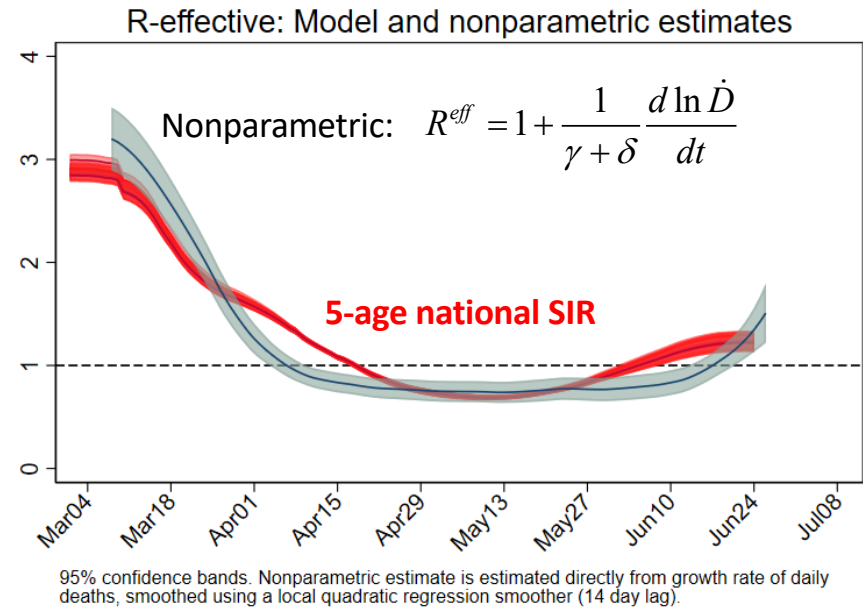
Source: Johns Hopkins University

Estimates of $R^{effective}(t) = R_0(t) \times (S/N)$



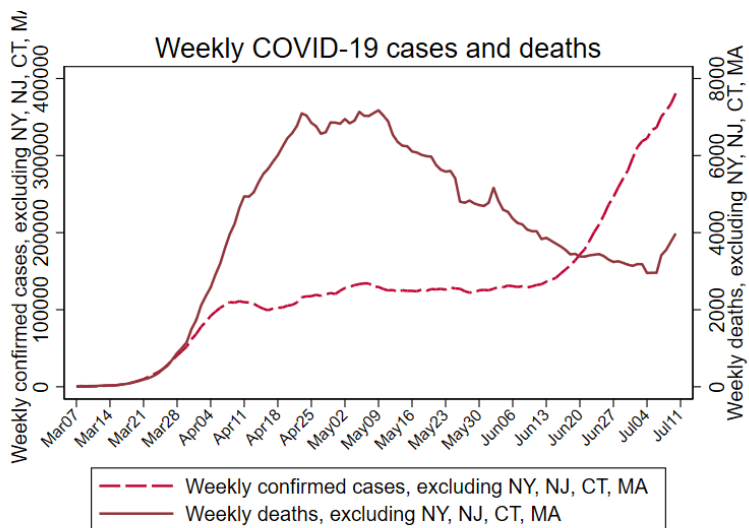
Estimates of $R^{effective}$

	Rt.Live (7/10/20)	F-V & Jones (6/21/20)
MA	0.93	0.78
CA	1.17	1.01
AZ	1.11	1.17
TX	1.13	1.08
FL	1.18	1.08

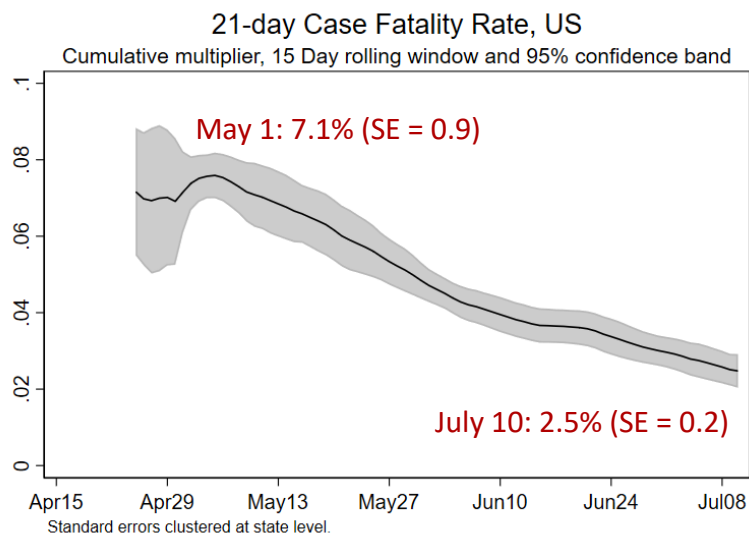


Source: Baqaee, Farhi, Mina, & Stock (2020), updated 7/10/10

Short-term forecasts and the case fatality rate

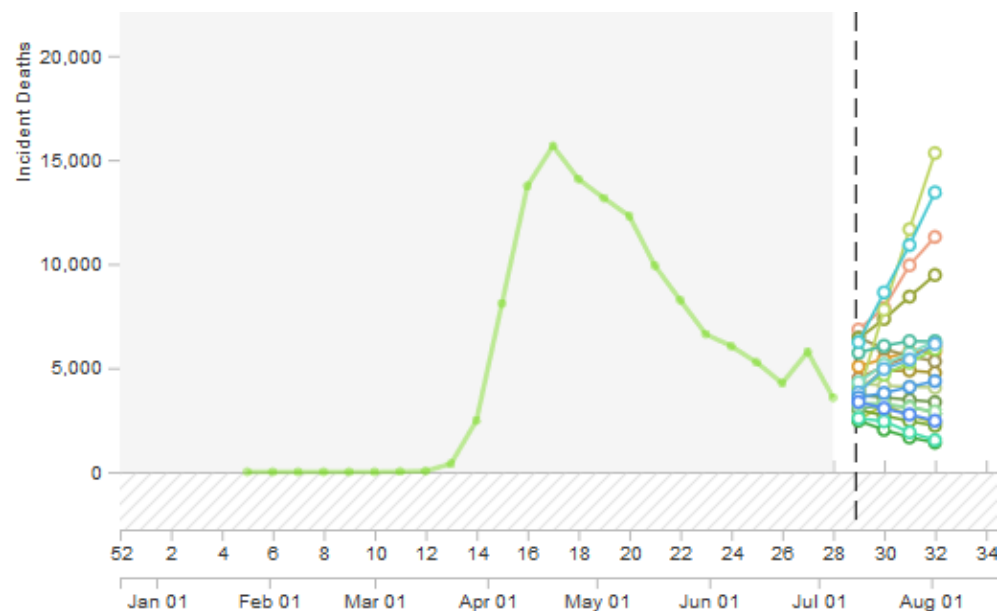


Source: Johns Hopkins University



Forecasts of Weekly Death Rate, 0-4 weeks ahead

Point forecasts from 19 models, updated 7/10/2020

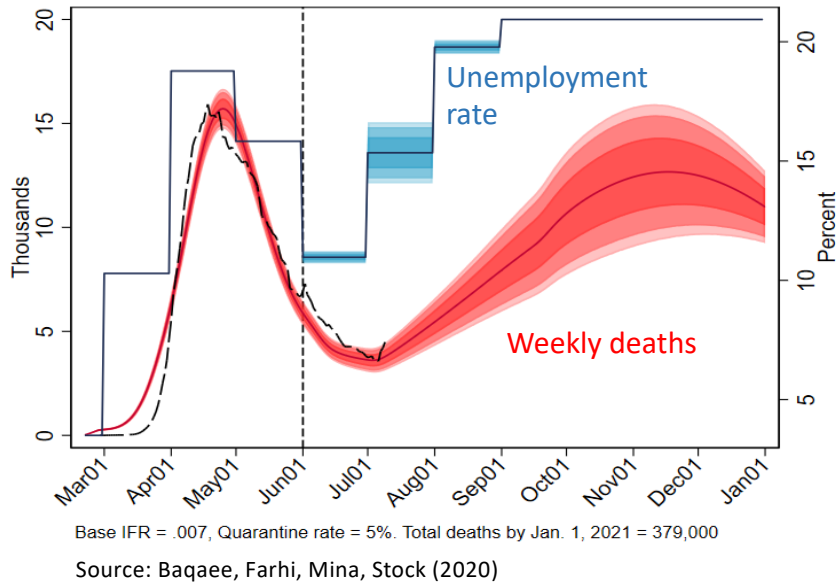


Source: COVID-19 Forecast Hub <https://viz.covid19forecasthub.org/>

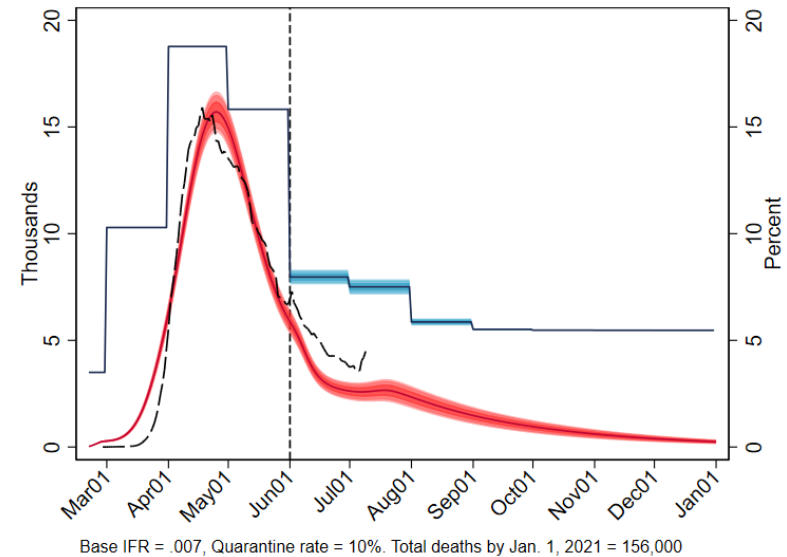
Time-varying CFR:

- Improvements in treatment
- Relaxation of testing eligibility rules
- Protections for elderly (changing age composition of those infected)

Forecasts: 6-month



- Relaxed social distancing, limited masks
- Close schools, economic shutdown



- Masks, social distancing, enhanced protections for elderly
- Open schools, no economic shutdown

The narrative should be “smart containment,” not deaths v. economy

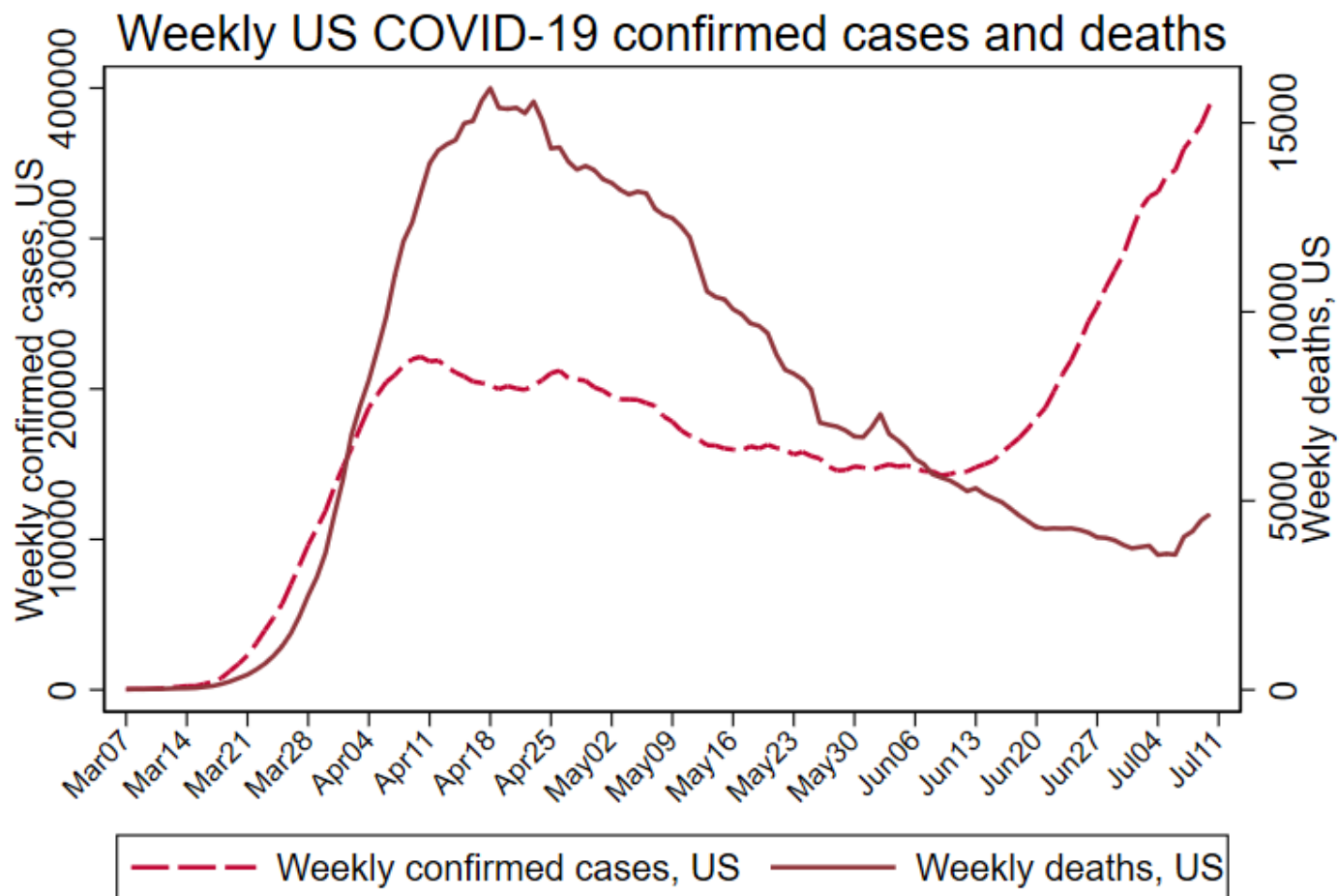
- Endogenous response (consumers won't return until it is safe)
- Unlike most economic problems, we have more instruments than targets
 - The “economic lockdown” tool is by itself not especially effective, and very costly
- Economists collectively need to do a better job advocating for non-economic NPIs
 - Masks and personal distancing; Testing & isolation; protections for elderly; etc.



Additional Slides

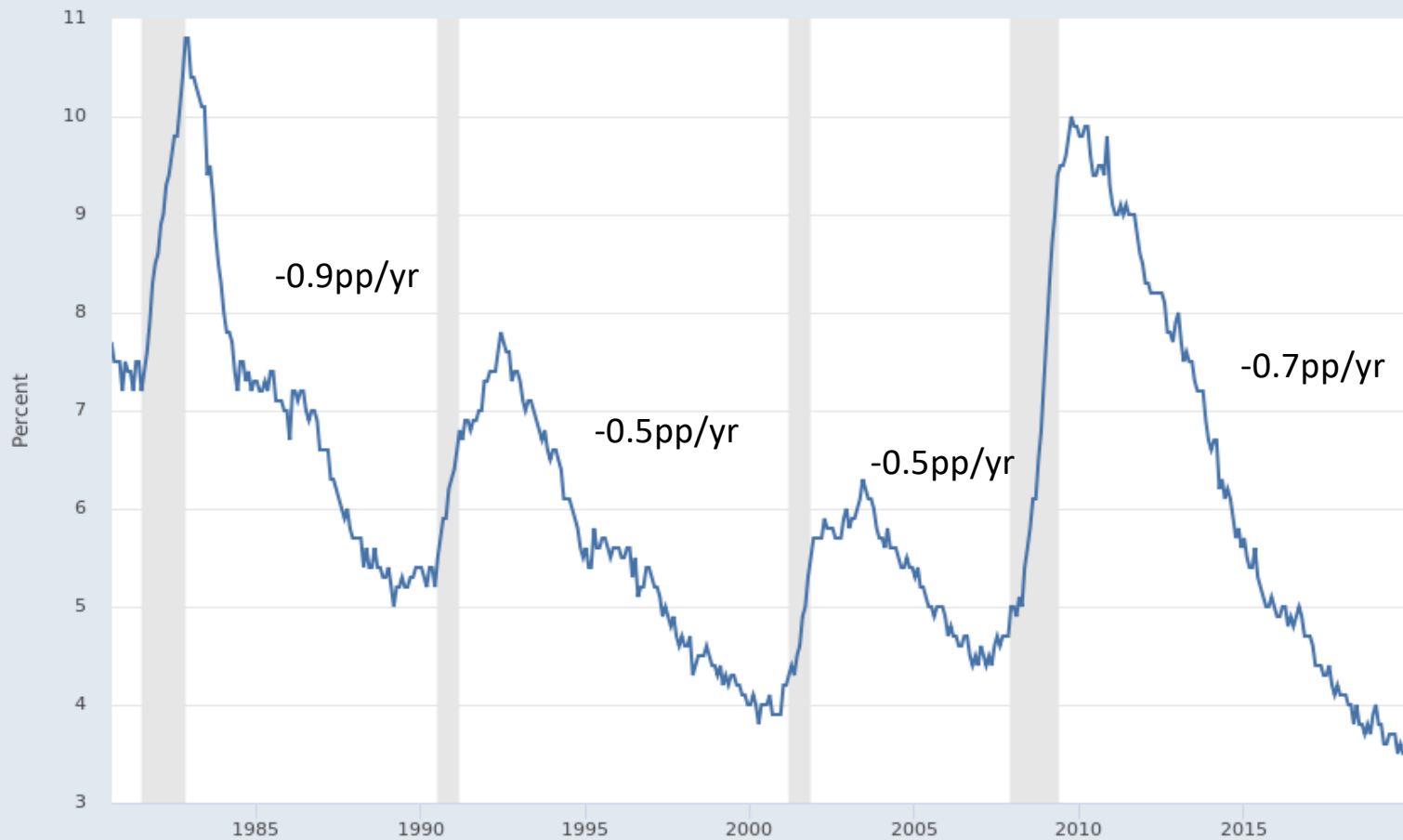
Cases and deaths through July 10

United States



Source: Johns Hopkins University

FRED — Unemployment Rate

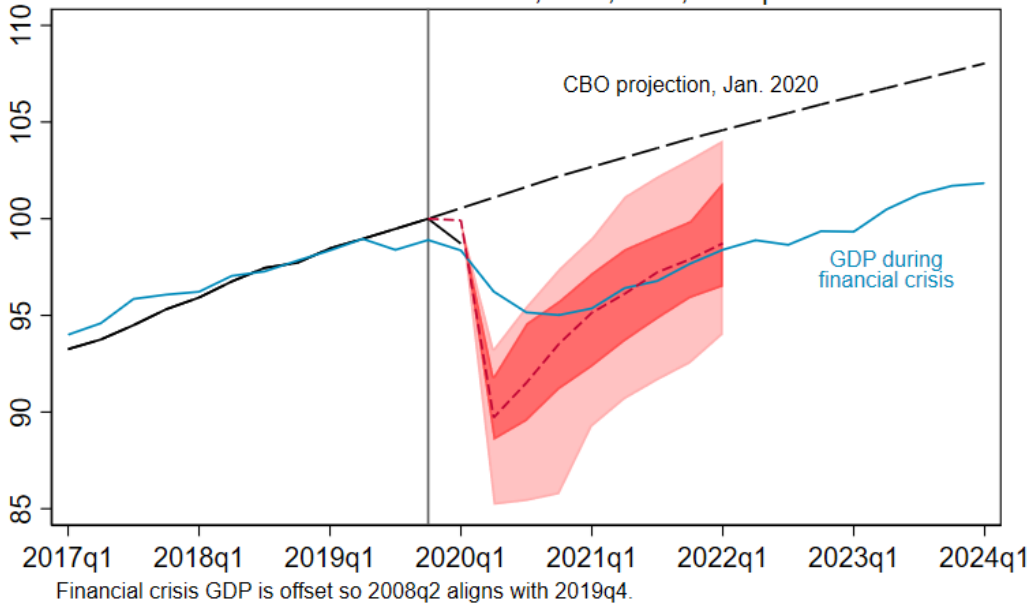


Source: U.S. Bureau of Labor Statistics

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GDP: WSJ Survey of Professional Forecasters, May 2020

GDP during the financial crisis is superimposed
Forecasts are median and 10%, 25%, 75%, 90% percentiles



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