

## Modelling COVID-19

### Notes on the Convergence of Economic and Epidemiological Reasons

*The Oxford Dictionary of Epidemiology* defines it as the “study of the occurrence and distribution of health-related states or events in specified populations, including the study of the determinants influencing such states, and the application of this knowledge to control the health problems.”<sup>1</sup> What is important to note here is the expansive flexibility of the expression “health-related states or events” and the insistence on the applicability of the knowledge to “control the health related problems.” In many ways, therefore, epidemiology is not simply one of the medical disciplines; neither is it only a focused study of harmful pathogens affecting an individual’s health like virology. “In the past 70 years,” the Dictionary farther adds, “the definition has broadened from concern with communicable disease epidemics to take in all processes and phenomena related to health in population.”<sup>2</sup> Anybody who is aware of the coincidence of the evolution of modern medical practices and the development of statistics as the modality of rationalising public policy since the mid-nineteenth century can see how epidemiology brings them together by emphasising the law of average to be found in large groups of people in order to define and sustain a medical normalcy – and hence the deviations therefrom – and to prescribe remedies based on a predictive technology of assessment and management of risk. In so doing, epidemiological analysis emulates a methodological apparatus specific to the discipline of economics, namely, modelling. Here we must not confuse the term with its recurrent usage in all scientific disciplines including the other branches of the medical sciences. Economic modelling is different from all the other forms of modelling in its claims to go beyond the simple act of representation or caricature of reality and refashion the world that it inhabits. In that sense, any act of modelling is also remodelling – intervening, altering, making it better according to certain assumptions, rhetoric, theories and selective deployment of data. The economic reason thus envisaged comes really close to the epidemiological reason we have been encountering in recent times, particularly in the long 2020.

In the proposed research, I would like to explore the history of this convergence between economic and epidemiological reasons in the juxtaposition of three registers – the active paraphernalia of modelling, the deployment of statistical modalities, and the procedures of formation and disciplining of the public. The impact of the long 2020 cannot be gauged without delving into the long twentieth century, especially the period since the influenza pandemic of 1918-19. This was the moment when epidemiology emerged as the most effective way of defining and managing a public health crisis even in the absence of an advanced virology (the flu virus would be discovered in 1933). What initially started as a ‘more scientific’ justification of surveillance and control, epidemiology, coupled with farther research in virology, would become more and more an area of model-based predictions of the converging pathways of the pathogens and the humans, thus allotting the virus a certain kind of agency similar to that ascribed to the price system in the models of rational choice theory in post-War economics. By investigating how both economics and epidemiology evolved as technologies of risk and future-oriented disciplines in the last one hundred years, I intend to present a genealogy of the embeddedness of the pathogens in the circuits of capital and knowledge production in our COVID-riddled time.

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<sup>1</sup> Miguel Porta (ed.), *A Dictionary of Epidemiology* (Oxford: Oxford University Press, 2008), 81.

<sup>2</sup>*Ibid.*