The paper for Economics 39F is due in class on Monday November 8 -- no late papers will be accepted. Papers should be five to seven double-spaced pages in length, plus any graphs, tables and references. Bring in the theory whenever possible, and support your arguments with graphs and/or algebra where appropriate. The paper should include a short introductory section containing a brief description of the issue and relevant background material, a main section presenting the analysis, and a brief concluding section summing up the main points of the paper. Any references, graphs, and tables should follow the concluding section.

**Topic**

On September 21, Jeneen Interlandi, a member of the New York Times Editorial Board, wrote in an Opinion Piece entitled “The World is at War with Covid: Covid is Winning”:

The giant steel vats used to make most of the world’s vaccines are not easy to come by. They’re highly specialized pieces of equipment; there are only so many of them to go around, and it’s expensive and time-consuming to make more. So when vaccine developers were figuring out how to produce billions of Covid-19 vaccine shots as quickly as possible, they decided to use an alternative: disposable bioreactor bags. At first, it was a win-win. The bags are quicker and cheaper to make than the tanks, and using them can shave precious hours off manufacturing times because they don’t have to be cleaned and sterilized after each use. But before long, even this innovation became an obstacle in the quest to end the Covid pandemic. First, larger vaccine makers bought up many more bags than they could use, leaving smaller vaccine makers with no recourse and potential manufacturing sites underutilized. Then as the vaccination campaign wore on, supplies began drying up altogether. Only a few companies make the bags, and they have little incentive to ramp up their manufacturing efforts because there’s no telling how long the uptick in demand will last. “It’s become a huge problem,” Prashant Yadav, a senior fellow at the Center for Global Development, told me in June. “And it’s something that only an actual government can resolve.”

Pharmaceutical companies generally know how to coordinate their global supply chains. They also know how to work together to secure the resources they need to make their products. But when the situation requires changes to national and global policy, world leaders need to step in. So far, they have not. For all its successes, the race to vaccinate the world against Covid has unfolded like a symphony without a conductor. The corralling of manufacturing sites has been haphazard. The channeling of equipment and ingredients has been messy and at times wasteful. And the flow of vaccines has been recklessly uneven: More than 80 percent of the four billion vaccine doses that had been distributed as of early August went to high- and upper-middle-income countries. …

Boosters for the wealthy and scraps for everyone else will neither get us out of this pandemic nor prepare us for the next one. But nearly a year since the first shots were administered, world leaders have yet to put forth a bolder or more comprehensive plan. “Nobody is saying unequivocally, ‘Here is what we need, and here is how we are going to get it,’” said Zain Rizvi, a health law expert at the consumer advocacy nonprofit Public Citizen. “We were promised a war effort, and instead we got a pillow fight.”

While this Opinion Piece focuses on vaccines, similar issues have arisen during the COVID-19 pandemic regarding the use of taxes and prohibitions on the exports of personal protective equipment (PPE), and regarding the implementation of effective public health measures across all countries. Using the models and concepts studied in class, discuss these issues and the proper role of national governments and international organizations such as the WTO and the WHO in responding to them.