James Fenske (Warwick), Mark Dincecco & Anil Menon (Michigan)
'The Columbian exchange and conflict in Asia'

Did the introduction of New World crops after 1500 increase violent conflict in Asia? Evidence of the effects of productivity on conflict typically consider transitory shocks and short-run responses. Evidence on the impact of more long-lived changes in productivity are less common, with Iyigun, Nunn and Qian (2017) as a notable exception. Over time, many of the proximate causes of conflict, including patterns of settlement and the configuration of states, may respond to permanent productivity increases. How, then, does conflict behave in the long run in response to the introduction of productivity-increasing crops? Further, Asian conflict may have facilitated European imperial expansion and changed trade relations in the centuries after 1500. Understanding the sources of Asian conflict thus helps to account for the Great Divergence in incomes between the West and the rest of the world since the early modern period.

In this paper, we geocode all conflicts in Asia between 1000 and 1900 recorded in Jaques (2007) and map these into a panel of 1x1 grid cells by century. We merge these data with caloric suitability data from Galor and Ozak (2015), which measures potential crop yields both before and after 1500 on the basis of exogenous climatic and soil conditions. We show in both difference in difference and event-study specifications that grid cells that gained in land productivity due to the Columbian Exchange saw increases in conflict, including civil conflict. The magnitude of this effect is meaningful. An increase in caloric suitability for a typical grid cell increased conflict incidence by roughly the mean of the outcome variable (0.04 events per century).

In understanding the mechanisms that explain this main result, we look at both heterogeneity and mediating variables. These suggest that a rapacity effect -- a rise in the gains from appropriation -- drives our results. Cells that increased in potential productivity saw their value rise, and became more densely settled and urban. This increased their attractiveness to both Asian and non-Asian political actors. Our results are driven by several types of land conflict and by several New World crops. They are largely driven by South Asia, a region that, in 1500, was comparatively densely settled, diverse, and housed several competing states. We show that the effects are largest in grid cells that have greater ethnic and genetic diversity in the present day. Mediation analysis supports population density, urbanization, and, to a lesser extent, British imperialism as mechanisms. Like Iyigun, Nunn and Qian (2017), we find that New World crops reduce the impact of weather shocks on conflict, and so the changing response of conflict to adverse weather shocks due to the Columbian Exchange cannot explain our result. We find no evidence that increasing state capacity, inequality across grid cells, or inequality between grid cells explain our result.