Casey Petroff

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Education

Harvard University, Cambridge, MA   Expected May 2023
    Doctoral candidate in Political Economy and Government
    Committee: Jeffry Frieden (chair), Claudia Goldin, Kosuke Imai
    Graduate student affiliate, Institute for Quantitative Social Sciences

London School of Economics and Political Science, London, UK   2014
    MSc with Distinction in Economic History

American University, Washington, DC   2013
    BSc with Honors in Mathematics and Economics (minors: finance and history)

Research

Research focus: political economy, economic history
Subfields: comparative politics, international relations

Conflict Technology as a Catalyst of State Formation (with Michael-David Mangini)

We argue that the gunpowder revolution in medieval Europe encouraged the amalgamation of smaller polities into larger centralized states. The shock to military technology made existing fortifications obsolete and dramatically raised the cost of defensive investments. Small polities lacked the fiscal capacity to make these investments, so they had either to ally or merge with others. Alliances created prospects of free-riding by interior cities on border cities. In contrast, unitary centralized states benefited from geographic and fiscal economies of scale, facilitating defensive investments at the border that protected the interior while limiting free-riding and resource misallocation. Using a new dataset on fortifications in over 6,000 European cities, we find that states made defensive investments in areas of territorial contestation, closer to borders, and farther from raw building materials. These findings are consistent with the theory that large centralized states arose in part as a consequence of changes in military technology.

Expert-Policymaker Interactions: Evidence from the History of Public Health

Scientific experts who work in policy-relevant fields may face dual incentives: on one hand, to make accurate predictions to increase their reputations in the eyes of their expert peers, and on the other hand, to promote their preferred policies. Using a large dataset of scientific writing, I examine this potential trade-off in the context of 19th-century cholera. For decades, scientists debated whether cholera was a contagious or non-contagious ("miasmatic") disease. This debate had important implications for policy, since only contagious diseases justified quarantines, the costs of which were most heavily borne by the trade and commerce sectors. I find that scientists with political links to trade and commerce were more likely to attribute cholera to non-contagious disease mechanisms than those without such links. This pattern is driven by the early 19th century, before major scientific advances solidified a modern medical understanding

of the germ theory of disease; in the latter part of the century, there is no clear difference in views. I explain this finding with a formal model of experts' trade-offs: biased experts can more easily suppress inconvenient information by pooling with uninformed actors when the existing scientific consensus is weak and evidence is noisy, but as a consensus grows, pooling becomes a less plausible strategy, leading biased actors to reveal more information.

Home Front Experience and Women's Political Activism

The 19th century saw the first entry of American women into mass political activity. What originated this sudden influx of female political activists? I leverage novel, hand-collected archival data on women's volunteering during the American Civil War to demonstrate a connection between wartime and peacetime political capacity. Towns where women organized volunteer societies in support of the Union war effort were more likely to have women-led political movements to agitate for temperance, a key issue that mobilized women who previously had little political experience. This relationship is robust to adjusting for other measures of pre-war and wartime social and organizational capital, including male enlistment in the Civil War. I argue that wartime volunteer mobilization helped women gain organizing experience that was useful for mass politics, even in a social context that precluded them from the public sphere and did not involve women directly substituting for male roles (as they did during the first and second World Wars).

Commodity World Price Volatility and Domestic Politics of Export Restrictions (with Michael K. Adjemian and Michel A. Robe)

We show the importance of accounting for political risk to understand forward-looking price volatility in agricultural markets. We propose a theoretical model that shows uncertainty about the future world price of staple foods is positively related to the likelihood (and, counterintuitively, is further boosted by the actual imposition) of export bans in top producer countries. To test our model's predictions, we use option-implied volatilities (IVols) as a proxy for commodity market uncertainty. We construct a novel, daily dataset of major restrictions on grain and oilseed exports that were announced, adopted, or repealed in 2002-2019. We show that wheat and corn IVols are significantly higher on the day and the week when a ban is first imposed and also during the whole period when the ban is in effect. The effects of export bans are statistically and economically significant. The results hold even when we control for global macro-economic uncertainty and risk aversion (jointly proxied by the equity VIX) and for cash market tightness (including the state of grain inventories) prior to the ban.

Teaching

Writing Fellow, Department of Government   2022-2023
- Design programming and hold workshops for Harvard undergraduates doing honors theses in government department to improve writing and learn conventions of research and writing for social sciences

Mini-Course on the Economic History of Textiles   Winter 2022
- Independent self-designed mini-course for Harvard affiliates and members of the public on the global economic history of the textile industry

API-201: Quantitative Analysis and Empirical Methods   Fall 2020
Course heads: Maya Sen and Teddy Svoronos
- Introductory course on statistics and data science for Masters in Public Policy students

GOV 2002/STAT 186: Causal Inference   Fall 2019
Course head: Kosuke Imai
- Course on causal inference and experimental design for social science PhD students and advanced undergraduates

GOV 1190: Politics of Europe   Spring 2018
Course head: Daniel Ziblatt
- Undergraduate course on historical political economy of Europe

GOV 1780: International Political Economy   Fall 2017
Course head: Jeffry Frieden
- Undergraduate course covering international trade, finance, and monetary policy

Other Employment

Resolve to Save Lives   2020
   Data science contractor for non-profit focused on epidemic response in developing world

Institute for Quantitative Social Sciences, Harvard University   2016-2018
   Research assistant for Prof. Gary King

University of Zürich   2014-2015
   Research assistant for Prof. Hans-Joachim Voth, Chair of Economic Development and Emerging Markets

U.S. Commodity Futures Trading Commission
   Contractor, Office of the Chief Economist   2012

Awards

Stone Fellowship, Kennedy School Multidisciplinary Program in Inequality & Social Policy   2016

Graduate School of Arts and Sciences Summer Tuition Fellowship   2016
   Fellowship for Spanish language study

Other Details

Languages: English (native); German (intermediate); Spanish (basic)
I do most of my work in R; see my website for my introductory guide to data science in R.