

MELISSA DELL

Contact Information

Department of Economics
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Employment

2014 – present: Assistant Professor, Harvard University, Department of Economics

Past employment

2016 – 2017: Visiting Assistant Professor, Stanford Institute for Economic Policy Research
2012 – 2014: Junior Fellow, Harvard Society of Fellows

Affiliations

Faculty Research Fellow, National Bureau of Economic Research
Associate Fellow, Canadian Institute for Advanced Research

Education

2012: PhD Economics, Massachusetts Institute of Technology
2007: MPhil Economics, Oxford University, with Distinction
2005: AB Economics, Harvard University, *summa cum laude*

Awards and Grants

2017	Calvó-Armengol International Prize
2017	Andrew Carnegie Fellowship
2016	National Science Foundation Grant #1628867: “Military and Civic Action” (\$364,407)
2016	Alfred Sloan Fellowship
2014	Named by the IMF as the youngest of 25 economists under the age of 45 shaping thought about the global economy
2012	Review of Economic Studies Tour
2007	National Science Foundation, Graduate Research Fellowship
2005	Rhodes Scholarship
2005	John Williams Prize – Best Undergraduate Harvard Student in Economics
2005	Seymour Harris Prize – Best Undergraduate Harvard Thesis in Economics
2004	Harry S. Truman Scholarship

Publications

“Nation Building Through Foreign Intervention: Evidence from Discontinuities in Military Strategies.” (with Pablo Querubin). Forthcoming *Quarterly Journal of Economics*.

“Trafficking Networks and the Mexican Drug War” *American Economic Review*, 105 (6), 2015, 1738-1779.

"What Do We Learn from the Weather? The New Climate-Economy Literature" (with Ben Jones and Ben Olken). *Journal of Economic Literature*, 52(3), September 2014, pp. 740-798.

“Temperature Shocks and Economic Growth: Evidence from the Last Half Century” (with Ben Jones and Ben Olken). *American Economic Journal: Macroeconomics*, 4(3), July 2012, pp. 66-95.

“The Persistent Effects of Peru’s Mining *Mita*.” *Econometrica* 78(6), 2010: pp. 1863–1903. Translated and reprinted in *Apnotes* 68, 2011: pp. 209-263.

“Productivity Differences Between and Within Countries” (with Daron Acemoglu). *American Economic Journal: Macroeconomics* 2(1), January 2010: pp. 169–188.

“Temperature and Income: Reconciling New Cross-Sectional and Panel Estimates” (with Ben Jones and Ben Olken). *American Economic Review Papers and Proceedings* 99 (2), May 2009: pp. 198-204.

Working Papers

“The Historical State, Local Collective Action, and Economic Development in Vietnam” (with Nathaniel Lane and Pablo Querubin). Revise and Resubmit *Econometrica*.

This study examines how the historical state conditions long-run development, using Vietnam as a laboratory. Northern Vietnam (Dai Viet) was ruled by a strong centralized state in which the village was the fundamental administrative unit. Southern Vietnam was a peripheral tributary of the Khmer (Cambodian) Empire, which followed a patron-client model with weaker, more personalized power relations and no village intermediation. Using a regression discontinuity design across the Dai Viet-Khmer boundary, the study shows that areas historically under the Dai Viet state have higher living standards today and better economic outcomes over the past 150 years. Rich historical data document that in Dai Viet villages, citizens have been better able to organize for public goods and redistribution through civil society and local government. This suggests that the strong historical state crowded in village-level collective action and that these norms persisted long after the original state disappeared.

“The Development Effects of the Extractive Colonial Economy: The Dutch Cultivation System in Java” (with Ben Olken)

Colonial powers typically organized economic activity in the colonies to maximize their economic returns. While the literature has emphasized the negative impacts of colonial extraction on institutional quality, the changes in economic organization implemented to spur production may have countervailing long-run effects. We examine these in the context of the Dutch Cultivation System, the integrated industrial and agricultural system for producing sugar that formed the core of the Dutch colonial enterprise in 19th century Java. We show that areas

close to where the Dutch established sugar factories in the mid-19th century are today more industrialized, have better infrastructure, are more educated, and are richer than nearby counterfactual locations that would have been similarly suitable for colonial sugar factories. We also show, using a spatial regression discontinuity design, that villages forced to grow sugar cane for the System have more village owned land, more schools, and substantially higher education levels, both historically and today. The results suggest that the economic structures implemented by colonizers to facilitate production can continue to promote economic activity in the long run.

“Insurgency and Long-Run Development: Evidence from the Mexican Revolution”

This study exploits within-state variation in drought severity to identify how insurgency during the Mexican Revolution, a major early 20th century armed conflict, impacted subsequent government policies and long-run economic development. Municipalities experiencing severe drought just prior to the Revolution were substantially more likely to have insurgent activity than municipalities where drought was less severe. Many insurgents demanded land reform, and following the Revolution, Mexico redistributed over half of its surface area in the form of ejidos: farms comprised of individual and communal plots that were granted to a group of petitioners. Rights to ejido plots were non-transferable, renting plots was prohibited, and many decisions about the use of ejido lands had to be countersigned by politicians. Instrumental variables estimates show that municipalities with revolutionary insurgency had more of their surface area redistributed as ejidos. Today, insurgent municipalities are more agricultural and less industrial. Incomes in insurgent municipalities are lower and alternations between political parties for the mayorship have been substantially less common.

“The Violent Consequences of Trade-Induced Worker Displacement in Mexico” (with Benjamin Feigenberg and Kensuke Teshima)

This study examines how Mexican manufacturing job loss induced by competition with China has impacted violent crime. Trade induced job loss leads to large increases in the homicide rate and cocaine trafficking, in particular in municipalities with transnational criminal organizations. When it becomes more lucrative to transport drugs through a location because changes in local labor markets lower the opportunity cost of criminal employment, drug trafficking organizations plausibly fight to gain control. The evidence supports a Becker style model in which the elasticity between legitimate and criminal employment is particularly high where criminal organizations lower illicit job search costs, where the drug trade implies higher pecuniary returns to violent crime, and where unemployment disproportionately affects low-skilled men.

Selected Work in Progress

“Agricultural Productivity Shocks and Structural Change in Mexico” (with Pablo Querubin)

This study examines the long-run impacts of irrigation on agricultural productivity and economic development in Mexico, using data compiled from newly digitized agricultural, industrial, and population censuses from throughout the 20th century. It exploits plausibly exogenous variation in whether there are rivers uphill from a municipality that are geographically suitable for constructing a dam. Being downhill from a location on a river geographically suitable for a dam

is highly predictive of the expansion of irrigated agricultural land between 1950 and 2007. Irrigation leads to long-run increases in both agricultural and industrial output and productivity, in industries linked to agriculture as well as in manufacturing more generally.

“Foreign Connections and Structural Transformation: Evidence from Discontinuities in Douglas MacArthur’s Economic Purge” (with Sahar Parsa)

Connections with foreign firms plausibly aid industrial diversification in initially poor economies, and this study leverages a unique natural experiment to measure their causal effects. Prior to World War II, most Taiwanese industrial firms were owned by Japanese conglomerates. These conglomerates were stripped of their colonial holdings following the war, but anecdotal evidence suggests that personal connections with their former Japanese managers helped Taiwanese entrepreneurs to access the inputs, technical expertise, and exporting contacts required to move into new industries after the war. The study isolates plausibly exogenous variation in these connections by exploiting unique features of the reorganization of the Japanese economy following the war. The Allied Command implemented an “economic purge” of managers in large Japanese firms, barring them from employment in other major Japanese conglomerates. Purged managers often moved to smaller firms, which were typically in newer industries. Firms with a capitalization of over one hundred million yen were subjected to the purge, meaning that Taiwanese entrepreneurs who worked before the war for firms just above the cutoff were more likely after the war to have connections to managers in newer industries than those who worked in similar firms just below the cutoff. We use a regression discontinuity design to examine whether these connections helped Taiwanese entrepreneurs to expand into these industries in the post-war period.

“Labor Skill Linkages and Structural Transformation” (with Sahar Parsa)

This study exploits unique features of Taiwanese industrialization to elucidate how structural change propagates through the economy and to examine how initial government investments influence this trajectory. High-skilled manufacturing expanded significantly in colonial Taiwan when the Japanese government advanced its Pacific War efforts by investing in Taiwan’s nascent heavy industries and chemical firms, which were owned by Japanese conglomerates. The government provided targeted firms with capital machinery, inputs, and an influx of Japanese engineers to train the local labor force. Most firms – both targeted and untargeted – were dismantled following Japanese surrender. However, the expanded human capital of the local labor force plausibly remained, aiding in the transition to high skilled manufacturing after the war. This study develops a model of structural transformation in which the production of outputs affects the subsequent composition of labor supplies available to produce different goods. The model is used to estimate the role that labor skill linkages to the targeted industries played in the trajectory of post-war structural change. The study instruments treatment by exploiting pre-period connections between the boards of directors of the Japanese parent firms and different political factions. Most Taiwanese firms belonged to conglomerates with political connections, but only some were connected to the faction that happened to be in power when the government targeted firms for war production.

“The Lasting Effects of Japanese Anti-Western Propaganda During the Second World War”

Japan colonized Southeast Asia during World War II, and a central aspect of their rule was an anti-western propaganda drive called the Asia for Asians campaign. It created youth organizations and disseminated propaganda emphasizing pan-Asian nationalism and Western brutalities and weakness. Historians have hypothesized that it played an important role in creating national identities that transcended village, ethnicity, and religion, encouraging citizens to unite during post-war independence movements. This study exploits plausibly exogenous variation in exposure to the campaign across space and cohorts in Vietnam – combined with rich public opinion data – to examine the extent to which efforts to cultivate anti-Western sentiment influenced long-run attitudes towards diversity, nationalism, and foreigners, potentially spurring insurgency during Vietnam’s independence struggle and the Vietnam War. It also explores whether these effects vary with the degree of extraction during the French colonial period and considers whether anti-Western sentiment conditioned how well different interventions, including U.S. pro-western propaganda campaigns, worked in reducing insurgency.

“Water Scarcity and Local Collective Action in Vietnam” (with Pablo Querubin)

This study exploits microterrain variation to examine how irrigation water scarcity influences village level community organization, comparing otherwise geographically similar communities with varying incentives to organize for irrigation water management. Once organizational capacity is developed, communities may use it for ends ranging from the provision of public goods within the confines of existing institutions to efforts to foster institutional overhaul through violence, and the study considers the circumstances under which communities organize insurgency. It also examines how local collective action conditions the types of counterinsurgency strategies most likely to promote political stability and economic growth, exploiting plausibly exogenous variation in different strategies used during the Vietnam War.

Professional Activities

Associate Editor, *Journal of the European Economic Association*. Foreign Editor, *Review of Economic Studies*

Referee for *American Economic Review*, *American Economic Journal: Applied Economics*, *American Economic Journal: Macroeconomics*, *American Economic Journal: Policy*, *American Political Science Review*, *Econometrica*, *The Economics of Transition*, *Environment and Development Economics*, *European Economic Review*, *Journal of Development Economics*, *Journal of Economic Growth*, *Journal of Environmental Economics and Management*, *Journal of the European Economic Association*, *Journal of Political Economy*, *Journal of Public Economics*, *Journal of Regional Science*, *Oxford Development Studies*, *Quarterly Journal of Economics*, *The Review of Economics and Statistics*, *Revista de Historia Económica*, *Science*, *Nature*, *Nature Climate Change*