



## Research Working Papers

# The Labor Market Effects of Offshoring by U.S. Multinational Firms: Evidence from Changes in Global Tax Policies

by: Brian K. Kovak, Lindsay Oldenski and Nicholas Sly

November 02, 2017

Changes in global tax policy that lower the effective tax rate on foreign income raise employment at U.S. multinational firms.

---

RWP 17-12, November 2017

Estimating the causal effect of offshoring on domestic employment is difficult because of the inherent simultaneity of multinational firms' domestic and foreign affiliate employment decisions. In this paper, we resolve this identification problem using variation in Bilateral Tax Treaties (BTTs), which reduce the effective cost of offshore activity by mitigating double taxation. We derive a panel difference-in-differences research design from a standard model of multinational firms, demonstrating the simultaneity problem and showing how to resolve it using BTTs as an instrument for offshore employment. We confirm that new treaty implementation is uncorrelated with existing employment trends, and use Bureau of Economic Analysis data on U.S. multinational firms to measure the domestic employment effects of offshore activity. Overall, we find modest positive effects of offshore activity on domestic employment. A 10 percent BTT-induced increase in affiliate employment drives a 1.8 percent increase in employment at the U.S. parent firm, with smaller effects at the industry and regional levels. Underlying these results is substantial heterogeneity based on offshoring margin and firm organizational structure. For example, increased foreign affiliate activity in vertically oriented multinational firms drives declining employment among non-multinationals in the same industry, and multinational firms opening new affiliates exhibit much smaller domestic employment growth than those expanding existing affiliates. Throughout the analysis, OLS estimates are much larger than the IV estimates, consistent with upward simultaneity bias. Overall, our results indicate that greater offshore activity raises net employment by U.S. firms, albeit with underlying job loss and reallocation of workers.

JEL Classification: F16, F23, F66, J20, J30

## Article Citations

- Kovak, Brian K., Lindsay Oldenski, and Nicholas Sly. 2017. "The Labor Market Effects of Offshoring by U.S. Multinational Firms: Evidence from Changes in Global Tax Policies." Federal Reserve Bank of Kansas City, Research Working Paper no. 17-12, November. Available at <https://doi.org/10.18651/RWP2017-12>

## Related Research

- Sly, Nicholas, and Caroline Weber. 2015. "Global Tax Policy and the Synchronization of Business Cycles." Federal Reserve Bank of Kansas City, Research Working Paper no. 15-07, August. Available at <https://www.kansascityfed.org/~media/files/publicat/reswkpap/pdf/rwp15-07.pdf>
-

## Author



### Nicholas Sly

#### Vice President, Economist, and Denver Branch Executive

Nicholas Sly is Vice President and Denver Branch Executive at the Federal Reserve Bank of Kansas City. In this role, he serves as the Bank's regional economist and its representative in the states of Colorado, Wyoming and in northern New Mexico. Mr. Sly works closely with the [Branch's board of directors](#) and is responsible for briefing the President of the Federal Reserve Bank of Kansas City on economic conditions in the Denver branch's region. Before joining the Bank in 2015, Mr. Sly was associate professor of economics at the University of Oregon. He graduated from the University of Northern Iowa with a degree in mathematics and economics and earned his Ph.D. in economics from Michigan State University. Mr. Sly is also a graduate of the Stonier Graduate School of Banking.

---