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Estimating the Impact of Missing Totalization Agreements

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Since the late 1970s, the United States has established a network of bilateral Social Security agreements that coordinate the U.S. Social Security program with the comparable programs of other countries. These international social security agreements, often called the "totalization agreements," have three main purposes. First, they eliminate dual Social Security taxation, the situation that occurs when a worker from one country works in another country and is required to pay social security taxes to both countries on the same earnings. Second, the agreements help fill gaps in benefit protection for workers who have divided their careers between the U.S. and another country. Finally, totalization agreements permit unrestricted payment of benefits to residents of the two countries.

After the agreement with Iceland entered into force on March 1, 2019, the U.S. now has a totalization agreement with 30 countries. In comparison, Canada has a social security agreement with 58 countries, and the number for the U.K. is 47, including 30 countries within the European Economic Area (EEA) and 17 countries outside the EEA.

This paper estimates the impact of the missing totalization agreements — the agreements that other countries such as Mexico and Turkey have signed with Canada but not the U.S. Conceptually, by reducing the tax and increasing benefit protection for citizens of one country working in another and vice versa, international social security agreements may affect labor mobility and, in turn, other macroeconomic outcomes such as bilateral trade.

Empirically, we find suggestive evidence that international social security agreements increase labor mobility. In particular, after the social security agreement between Canada and the Philippines entered into force in 1997, there has been a much larger increase in the population born in the Philippines but living in Canada rather than in the U.S., which has no social security agreement with the Philippines.

Using a difference-in-differences framework, we estimate that, on average, the social security agreements between Canada and countries that have no social security agreement with the U.S. reduced the bilateral exports from Canada to those countries (relative to the U.S. exports to those countries) by about 8.8% in the first 10 years. At the same time, the agreements also increased the bilateral

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This research brief is based on working paper MRDRC WP 2021-432, UM21-Q4.

imports by Canada from those countries (relative to the U.S. imports from those countries) by about 9%, although the estimate is not statistically different from zero due to a large standard error.

Moreover, we find the impacts on both exports and imports are heterogeneous. In particular, the estimates suggest that the impact on exports increases over time and is concentrated among the agreements enacted either before 1995 or after 2010 with countries that have a low real GDP per capita, a low exports-to-GDP ratio, and a medium imports-to-GDP ratio. On the other hand, the impact on imports is concentrated in the first three years following the social security agreements with middle-sized countries at the upper end of the distribution of real GDP per capita.

The results in this paper are consistent with those in Seshadri (2019) and Seshadri and Guo (2020), both of which find that the existing totalization agreements between the U.S. and other countries reduced the U.S. exports to those countries and increased the U.S. imports from those countries. The projects also found that the impacts on both exports and imports are heterogeneous across agreements/countries as well as sectors.

Together, the estimates suggest that additional totalization agreements would increase international labor mobility, reduce U.S. exports, and increase U.S. imports, and the exact magnitude of these impacts depends on the characteristics of the partner countries. ❖

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Sponsor information: The research reported herein was performed pursuant to grant RDR18000002 from the U.S. Social Security Administration (SSA) through the Michigan Retirement and Disability Research Center (MRDRC). The findings and conclusions expressed are solely those of the author(s) and do not represent the views of SSA, any agency of the federal government, or the MRDRC.