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A Framework for Cost-benefit Analysis of Totalization Agreements

*Erik Meijer, Francisco Pérez-Arce, and María J. Prados**

The United States has signed 31 bilateral totalization agreements. These international Social Security agreements coordinate the U.S. Social Security program with partner countries' comparable programs. The main functions of totalization agreements are to eliminate the dual social security taxation incurred when an individual working abroad must contribute to the social security system of both their home and host countries, and to provide the totalization of benefits, which combines the coverage credits from contributions while working in different countries to facilitate qualifying for a public pension.

These agreements have the potential to affect several economic agents. In this paper, we develop a cost-benefit framework of totalization agreements to facilitate the comparison and assessment of the effects on different stakeholders from a cost-benefit perspective. A cost-benefit framework is a useful tool to prospectively or retrospectively evaluate the desirability of totalization agreements. This framework lists the relevant stakeholders and the types of potential effects of the agreement on them, and attempts to quantify each type of effect for each stakeholder. Policymakers can use this as input and weigh the various effects to arrive at their overall evaluation.

Totalization agreements have clear first-order benefits and costs. For example, not being doubly taxed for social security substantially reduces the cost for multinationals and U.S. companies with foreign affiliates and, importantly, for their workers. The counterpart is that, absent a totalization agreement, some foreign workers being sent to the U.S. by companies based abroad would pay taxes to the U.S. Social Security Administration (SSA), but many of them will not have to do so once an agreement is in place.

The impacts of such treaties may extend beyond these key stakeholders. The economic agents affected by these agreements are U.S. workers who potentially could be sent on a temporary or longer-term assignment to a partner country; the employers of these workers; the Social Security Administration and U.S. government more broadly; competitor firms, suppliers, and clients of the directly

* **Erik Meijer** is a senior economist at the University of Southern California's Center for Economic and Social Research (CESR) and an adjunct economist at RAND. **Francisco Perez-Arce** is an economist at CESR, based in the Washington, D.C., office. **María Prados** is an economist at CESR. This research brief is based on working paper WP 2020-410, UM20-08.

affected firms; and the economy as a whole, as well as the counterparts of these in the partner country.

The direct effects are reduced social security taxes paid by employers and employees, increased eligibility of some workers for social security benefits, and the resulting effects on the benefit amounts. We developed a life-cycle model of individual workers to quantify the benefits these agreements imply for those individuals working abroad as well as for those considering a relocation.

Other effects of totalization agreements take place through the reduction in associated multinational production costs. By making it less costly for firms to relocate their resources abroad, they are more likely to engage in multinational production and serve foreign markets that way. These changes are associated with increased international worker flows, more Foreign Direct Investment and capital flows, more efficient production, more international trade, and higher Gross Domestic Product.

We provide relatively simple and straightforward example calculations for some of these effects, as well as calculations using a stylized microeconomic model for workers and a stylized macroeconomic model for firm investment and production allocation. In a few cases, we have both simple calculations of direct effects and model calculations that take more channels into account (using strong assumptions). They agree well, implying that the simple calculations capture most of the total effect.

We have identified important gaps in data availability and knowledge of parameters and firm and worker behavior. Less data availability implies that stronger assumptions need to be made or more scenarios evaluated. ❖

Michigan Retirement and Disability Research Center
Institute for Social Research
426 Thompson Street, Room 3026
Ann Arbor, MI 48104-2321
Phone: (734) 615-0422 **Fax:** (734) 615-2180
mrdrcumich@umich.edu www.mrdrc.isr.umich.edu

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