

## **ABSTRACT**

*Foreign investment from multinational firms has the potential to generate spillovers in the form of knowledge, technology, and innovation that enhance the productivity of domestic industries. This study aims to analyze the effect of multinational firms' R&D spillovers on the total factor productivity (TFP) of firms in the Indonesian manufacturing industry, as well as to examine the role of complexity and technological gaps in influencing the effectiveness of spillovers.*

*This study uses data from the 2017 to 2019 Annual Survey of Manufacturing Firms. TFP was estimated using the Levinsohn-Petrin approach, and the effect of R&D spillovers was estimated using the fixed effects – within transformation method. Two types of tests were conducted, first, the effect of R&D spillovers was estimated based on three subsamples of complexity and technological gaps, and second, an interaction variable was included to examine the role of complexity or gaps in the effectiveness of spillovers on firm productivity.*

*This study finds that R&D spillovers can positively impact domestic firms' TFP, particularly when domestic firms are still able to learn and absorb the spillovers. However, this effect tends to weaken when domestic firms operate in subsectors with high-tech multinational firms, or when the technology gap is too large. This finding highlights the importance of enhancing internal capabilities in absorbing and utilizing new knowledge and technology.*

*Keywords: R&D spillovers, technological complexity, technological gap, TFP, multinational firms, Indonesian manufacturing industry.*

