Ownership and Energy Efficiency in Indonesia’s Manufacturing Plants:
Comparing the 1990s and the Early 21st Century
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Abstract (277 words)
This paper examines total energy and electricity efficiency differentials between foreign multinational corporations (MNCs) or state-owned enterprises (SOEs), and local, private plants in Indonesian manufacturing, using data on medium-large plants from industrial surveys for 1992-1995, 2002-2005, and 2007-2009. These results will first be compared from previous, more detailed results from cross section analysis of census data for 1996 and 2006 (Ramstetter and Narjoko 2012), which suggested that correlations between ownership and five different energy intensities (total energy, electricity, diesel fuel, natural gas fuel, and coal fuel) were all relatively weak. Second, use of pooled and/or panelized survey data will allow for scrutiny of potential simultaneity biases that are likely to affect previous cross section estimates. However, the survey data will not permit the detailed disaggregation of fuel types that the census data did.

Determining whether ownership is related to the energy efficiency is important because purchased energy consumption generates a large portion of pollution (mainly air pollution) emitted by manufacturing plants. Improving energy efficiency or energy conservation is thus an important way to limit pollution by manufacturers. Thus, if foreign MNCs are more energy efficient than local plants or firms, as found by Eskeland and Harrison’s (2003) analysis of manufacturing plants in Côte d’Ivoire, Mexico, and Venezuela, they may contribute directly to lower pollution intensity. In Indonesia, distinguishing SOEs is also important because of their prominent roles in some industries. In contrast, the cross section evidence for 1996 and 2006 suggests that it is not very meaningful to focus on plant ownership if Indonesia’s policy makers are concerned with energy efficiency in manufacturing. The primary purpose of this study is to determine the robustness of that conclusion.

Keywords: ownership, multinational corporations, energy efficiency, Indonesia, manufacturing

JEL Categories: F23, K32, L32, L33, L60, O53, Q40

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