Natural Resources and Cross-Country Income Differences

Robert Inklaar
University of Groningen

Daan Freeman
University of Groningen

Paper Abstract: Much of the literature on the role of natural capital – land and subsoil assets – has focused on natural capital as a source of wealth, i.e. as part of nation’s balanced sheet (World Bank 2006, 2011; Caselli and Feyrer, 2007, Arrow, Dasgupta, Goulder, Mumford and Oleson, 2012). Much less attention has been given to assessing the role of natural capital in production (with Brandt, Schreyer and Zipperer, 2013, as one exception). The goal and contribution of this paper is to show how important natural capital is in accounting for cross-country income differences across up to 180 countries around the world. This will extend the literature on development accounting, reviewed by Caselli (2005) and Hsieh and Klenow (2010), by accounting for a greater number of inputs, in a consistent fashion. This will require an adaptation of the methodology of Brandt et al. (2013) and Diewert and Fox (2015) for assessing the role of natural capital in productivity growth to a cross-country setting. The extension will be along the lines of Diewert and Morrison (1986) and Jorgenson and Nishimizu (1978) and will involve comparing rental prices of produced capital and rents of natural capital to construct a more comprehensive measures of relative capital input. We will build on the work of Feenstra, Inklaar and Timmer (2015), who develop and use information on investment by asset type, but who do not construct a capital-services measure of capital input and make use of (unpublished) data by the World Bank on resource rents and production.