International Productivity Comparisons and Natural Resources: Resource Rents and Missing Endowments

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Standard theory for cross-country productivity comparisons assumes all countries use the same set of factor inputs in production. This assumption is violated when extending the set of (potential) factor inputs to include natural resources, such as oil, gas and gold, because countries typically lack certain endowments. Yet the extension of factor inputs beyond produced capital and labour is important for arriving at unbiased relative productivity estimates. In this paper we propose a solution to the missing endowment problem by comparing productivity only for the overlapping set of inputs *and activities*. We show that this has a substantial impact on estimated relative productivity levels for those countries heavily reliant on natural resources for generating their income.