

Natural Resources and Economic Growth: A Meta-Analysis

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Abstract

Little consensus exists on the effect of natural resource richness on economic growth and the mechanism underlying the effect. An important question in development studies is how abundance of natural resources affects long-term economic growth. No consensus answer, however, has yet emerged; we collect 33 studies providing 402 different regression specifications with approximately:

- 40% of empirical papers finding a negative effect,
- 40% finding no effect,
- 20% finding a positive effect.

After reviewing the apparently mixed results reported in the literature, the research asks two principle questions:

- First, what is the mean effect of natural resources on economic growth?
- Second, why do different researchers obtain different results?

To summarize the literature quantitatively, the article uses meta-analysis techniques (Stanley, 2001) and finds that the mean effect of natural resources on economic growth is negligible (negative or positive depending on the particular meta-analysis model).

In addition, the research finds little evidence for publication selection: i.e., that the authors, referees or editors would prefer some types of the findings (such as statistically significant evidence in favor of the natural resource curse) at the expense of other results.

Next, the meta-regression analysis also shows that several factors are systematically important for the estimated effect of natural resources on economic growth. The results indicate that it matters for the results:

- When primary studies explicitly consider the interaction of institutional quality and natural resources, they are less likely to find evidence consistent with the natural resource curse.
- Well-functioning institutions eliminate the potentially negative effect of natural resources, as they reduce the extent of rent-seeking activities often associated with point-resource natural resources.
- The primary studies that include investment as a control variable are more likely to find the natural resource curse.
- The meta-regression approach also points to several method choices that have a strong and systematic effect on the reported results (data period under investigation, treatment of institutions, control for investment, definition of natural resources), and our recommendation to researchers is to report robustness checks with respect to these aspects of methodology.

Keywords: Natural resources, institutions, publication selection bias, meta-analysis

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