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Power Outages and Firm Performance in Sub-Saharan Africa

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Abstract

In this paper we assess the extent to which power outages affect the sales of firms across different African economies. We address the potential endogeneity concerns endemic in much of the existing literature by constructing an instrument for power outages based on the varying share of electricity produced by hydro-power as a result of variation in the local climate conditions. Using firm-level data for 14 countries from the World Bank Enterprise Surveys, we find evidence of a negative relationship between an unreliable electricity supply and firms' sales, with a stronger effect for firms that do not own a generator. We find that reducing average outage levels to those of South Africa would increase overall sales of firms in Sub-Saharan Africa by 85.1%, rising to 117.4% for firms without a generator.

JEL classification: O12, O18, O55

Keywords: Firms, hydropower, Africa, river-flow modelling, power outages.

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