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Network Utilities Performance and Institutional Quality: Evidence from the Italian Electricity Sector

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There is a sizable economic literature that explores the role and significance of historical, geographic, social and other factors in economic growth. Among such factors are the institutions, which manifest themselves in a variety of formal and informal ways. Institutions are shaped over time and have influence on economic development. However, the effect of institutional factors on micro-level economic activity is much less explored in the literature. There is also limited evidence in the literature on the differential effect of institutions within the regions of countries. Moreover, whether the performance of regulated utilities within a country is affected by the quality of institutions is yet to be investigated thoroughly.

In this paper we analyse how the quality of regional institutions impact performance of Italian electricity distribution utilities. Italy presents a suitable case for such a study with regional economic differences and availability of good quality data. Insights into the sources of regional differences are of importance to decision makers and in particular to sector regulators wishing to improve the performance of regulated network utilities.

We use established econometric methods to estimate cost functions and examine the performance of 108 electricity distribution utilities in Italy from 2011 to 2015. We use a new dataset customised for the purpose of regulatory analysis constructed with the help of the Italian Regulator for Energy, Networks, and Environment. In addition, we use a recent dataset on the quality of institutions in different regions of the country. The data includes public and private utilities of different sizes and geographic spread in Italy.

The results in this paper confirm that the effect of institutional factors on economic development can be traced to micro-level regulated sectors in regions of economies. This paper presents new evidence that regulated utilities in the regions with better government effectiveness, responsiveness towards the citizens, control of corruption, and rule of law, also tend to be more cost efficient. The findings suggest that national regulators should take regional institutional diversity into account in incentive regulation and efficiency benchmarking of utilities.

Current regulatory approaches do not take this into account and mainly focus on firm-level economic incentives and activities to improve the efficiency of the utilities. However, it appears that considering impacts of institutions is inevitable for devising effective incentives to regulated firms to improve their efficiency and quality of service.

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