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**BENCHMARKING OF US GAS TRANSMISSION UTILITIES:
FINDING COMPARATORS FOR EUROPEAN COMPANIES**

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Overview

Increasingly, energy sector reforms attempt to improve the efficiency of the natural monopoly segments of the industry, namely distribution and transmission, through regulatory reforms. The context for this paper is incentive-based regulation and induced efficiency enhancements for gas transmission operators using benchmarking methods. The aim of benchmarking is to reveal efficiency shortfalls amongst the regulated utilities.

In Europe, several countries take advantage of benchmarking techniques to implement incentive regulation. For gas transmission though, many countries lack a sufficiently large number of companies to use the same techniques. This paper proposes to take advantage of publicly available US data to allow benchmarking of individual European gas transmission companies.

The paper uses a panel of US inter-state gas transmission companies to select cost drivers and produce individual efficiency scores using standard benchmarking techniques.

The paper is outlined as follows. First, the relevant literature is reviewed. Second, the benchmarking techniques used are introduced and the overall approach outlined. Third, the data is introduced. Fourth, a cost driver analysis is provided, a model chosen, and the actual benchmarking performed. Last, results are presented and recommendations given.

Methods

The cost-driver analysis uses Ordinary Least Squares regression. The benchmarking is done using a widely adopted frontier-based benchmarking method: the stochastic method of Stochastic Frontier Analysis (SFA).

The model looks as follows. Total cost and revenue are the alternative dependent variables. Two important cost-drivers are pipeline capacity and total pipeline length. An important control variable is the age of assets.

Results

Results show that there are no conceptual obstacles for benchmarking individual European companies using US data.

Conclusions

Even though benchmarking with US data is feasible, standardization of data should be a priority area for European regulators. Data collection over several years should allow for the use of relatively robust panel data models with European data only. However, co-operation with other regulators should allow for the inclusion of world best-practice in the benchmarking.

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