

The Direct Costs and Benefits of US Electric Utility Divestitures

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Competition improves firm performance. But in several industries, in particular industries where delivery is over networks, effective competition requires the vertical separation of firms. Where it is not economical for entrants to duplicate the network, vertically integrated firms might discriminate against entrants. But integration can lead to cost savings where the production technology exhibits cost synergies. These cost savings might be limited by the increase in the firm's absolute size when it is integrated. It might be more expensive to supervise larger firms (for the management and regulators). When considering the optimal industry structure regulators have to weigh these different costs and benefits of integration.

In this paper we empirically assess the optimal industry structure for the case of the US electric industry. We do so by analysing the performance effects of competition and vertical separation. During the 1990s several US states introduced competition into electricity markets. A few also vertically separated utilities to make competition more effective. These reforms allow us to compare the performance of utilities affected by the reforms with the performance of utilities that were not affected by these reforms to assess the relative benefits of different industry structures.

Our results cover a range, because there is uncertainty about the true production technology. We as analysts can observe and measure the actual input and outputs of firms but we cannot observe the complete characteristics of the technology, i.e. all feasible production possibilities. We consider the effects for different assumptions about the true production technology. Our results for the combined effect of the introduction of competition

and vertical separation range from virtually zero to about US \$24 billion. The latter number represents about 10 per cent of the total costs of all separated utilities over the 9 years in our sample. For one model the effects of competition and separation have the same size but opposite signs (producing a zero overall effect). For all other models the effects of competition and separation are both positive.

We conclude that despite some economists' warnings about lost synergies when separating electric utilities the benefits from separation in the form of increased competition and lower costs of supervision dominate. It is likely that the reform of the US electric industry was beneficial.

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