

## Guest Editor's Foreword

This issue of the *Review of Network Economics* is devoted to the theory and practice of incentive regulation, broadly defined. The distinguished scholars whose contributions make up this issue come from a variety of different backgrounds, including academics, professional consultants and regulators. The views expressed in these articles are thought-provoking and promise to improve our understanding of incentive regulation in important new ways.

Among the multitude of advances in regulatory economics over the last half-century, incentive regulation is somewhat unique in that it has had profound implications for both regulatory theory and regulatory practice. Indeed, it would be difficult to recount an innovation in regulatory economics that has had a more profound and lasting impact in changing the regulatory landscape. These articles continue this tradition with important advances in the theory of incentive regulation that also provide useful policy guidance to practitioners.

The first four papers in this special issue provide assessments of the traditional application of incentive regulation. An overview of incentive regulation in the natural gas, electric power and telecommunications industries is provided in the paper by Ross Hemphill, Mark Meitzen and Phillip Schoech. They find that the more pervasive adoption of incentive regulation in telecommunications relative to electric power and natural gas likely reflects a number of different factors, including regulatory commitment, technological change, market concentration and concerns over system reliability. This analysis continues with a paper by Timothy Tardiff and William Taylor that focuses on the evolving nature of incentive regulation in the telecommunications industry. This paper examines the unique challenges presented by increasing competition and the application of price cap regulation to a subset of the regulated firm's services. David Sappington provides a comprehensive survey of the literature on telephone service quality under various regulatory regimes. A key finding of this survey is that telephone service quality has increased under incentive regulation (relative to traditional, rate-of-return regulation) in some dimensions and yet has decreased in others. Roger Sherman examines different regulatory regimes from the perspective of the "carrot and the stick". He finds that relative to traditional rate-of-return regulation, incentive regulation makes greater use of both the carrot (prospect of higher profits) and the stick (discipline of "competitive" costs) to motivate performance.

The next two papers in this special issue explore new approaches to incentive regulation. David Mandy and William Sharkey investigate the implications of incentive regulation for TELRIC (total element long-run incremental cost) in implementing the 1996 Telecommunications Act. They find that adjustments to the TELRIC pricing rule are required to emulate a competitive market outcome and to provide the proper incentives for incumbent firms to invest in network infrastructure. The implications of TELRIC and network sharing are further examined in the paper by Thomas Hazlett and Arthur Havenner. They caution that the "free entry" precipitated by TELRIC pricing rules could

have deleterious consequences for investment in infrastructure and, in turn, frustrate the goals of the 1996 Telecommunications Act.

The final two papers in this special issue represent the perspectives of the former chairpersons of two state regulatory commissions. Paul Vasington analyzes the interplay between economics and politics in regulatory decision-making as it pertains to the evolution of incentive regulation in the Massachusetts telecommunications marketplace. His analysis provides a candid, inside look at the challenges that regulators and their staff face in attempting to strike the appropriate balance between competing public policy objectives. Raymond Gifford looks at the decision-making process within state public service commissions from the perspective of “regulatory impressionism”. He contends that regulators are not well-positioned, nor sufficiently informed, to make the types of decisions that may be required of them in an increasingly competitive marketplace subject to rapid technological change.

This special issue commences with a summary and reaction to each of these papers by Professor Stephen Littlechild. Professor Littlechild is a pioneer in the theory and practice of incentive regulation and here enlists this unique background to provide us with the benefits of his thoughtful perspectives.

Finally, I would like to take this opportunity to thank all of the authors for their fine contributions to this special issue of the *Review of Network Economics*. I am confident that these articles will serve not only to expand the frontiers of the existing literature, but also to inform the design of sound regulatory policies for many years to come.

Dennis L. Weisman – Guest Editor