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**Converging Industries Research
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Practical Solutions for Communications Policy

**Regulatory Wild Cards: Unforeseen Impacts
on Investment Decisions in Regulated
Companies**

Executive Summary

July 15, 1996

*Presentation at the July 1996 NARUC Meeting,
Los Angeles, CA*

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Objective of Paper

Different approaches to financial decision-making for regulated and nonregulated companies affect the companies= incentives to invest in new technologies. Just as in a card game where a wild card introduces an unforeseen or unpredictable outcome, some regulatory tools may introduce an unforeseen or unpredictable impact on investment decisions.

Some of these impacts may be unavoidable consequences of pursuing traditional and necessary regulatory goals. In carrying out their useful and necessary functions, however, regulators and policy makers should be aware of the impact their rules may have on the investment decisions of regulated companies.

Legislative Authority for Promoting Investment

The *Telecommunications Act of 1996* gives the Federal Communications Commission (FCC) and state regulatory commissions authority to consider certain policies and regulatory methods in order to encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans.¹

Regulation and Investment Decisions

Prior to deploying a specific technology, a company needs to determine whether the deployment is financially attractive compared to other investment opportunities. Because the Act encourages investment in an advanced infrastructure, investment incentives may now play a role in the regulatory forum (in addition to traditional policy goals, such as just and reasonable rates, universal service, and service quality). These issues are important not only in the context of bringing new technologies to schools and libraries; these issues are also important to the economic development of the community, state, and nation.

Investment Decisions in Regulated and Competitive Companies

Understanding differences in investment decisions of regulated and competitive companies may be helpful for regulators as they implement new policy. This is important because of their new authority to consider regulatory changes to remove barriers to telecommunications infrastructure investment. Competitive companies face uncertainties in the marketplace when they produce new products and services. Traditional monopoly regulation can increase uncertainty in the investment decision process since it requires additional steps, such as compliance with cost allocation, service classification, and tariffing requirements.

¹*Telecommunications Act of 1996*, Pub. L. No. 104-104, February 8, 1996. For more details, see U.S. Congress, House of Representatives, 104th Congress, 2d Session, Report 104-458, *Telecommunications Act of 1996, Conference Report to Accompany S. 652* [hereinafter referred to as *Conference Report to Accompany S. 652*].

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Unforeseen Impact on Investment Incentives

- ***Regulation increases the level of uncertainty associated with investment, without providing a corresponding increase in potential returns.***

Compared to competitive companies, traditional regulated telephone companies have additional requirements associated with the roll-out of new products. The extra steps involved can increase the uncertainty in the investment process.

An investment with less variation (low risk) is better than one with more variation (high risk), if each investment has the same expected return. Therefore, the investment with more risk needs to generate a higher return to make it attractive (Figure 1).

- ***Regulatory tools developed for other purposes may affect investment decisions.***

Regulatory tools have an impact on investment decisions even if they arose for other purposes (such as safeguards against the abuse of monopoly power). Pricing, cost allocation, and service deployment are three significant regulatory tools introduced and used for other purposes. However, these three tools may affect investment decisions as indicated in Figure 2, which summarizes the modeling based on a sample investment.

- ***Existing approaches that may encourage market-based investment in the transition from monopoly to competitive markets are available to regulators.***

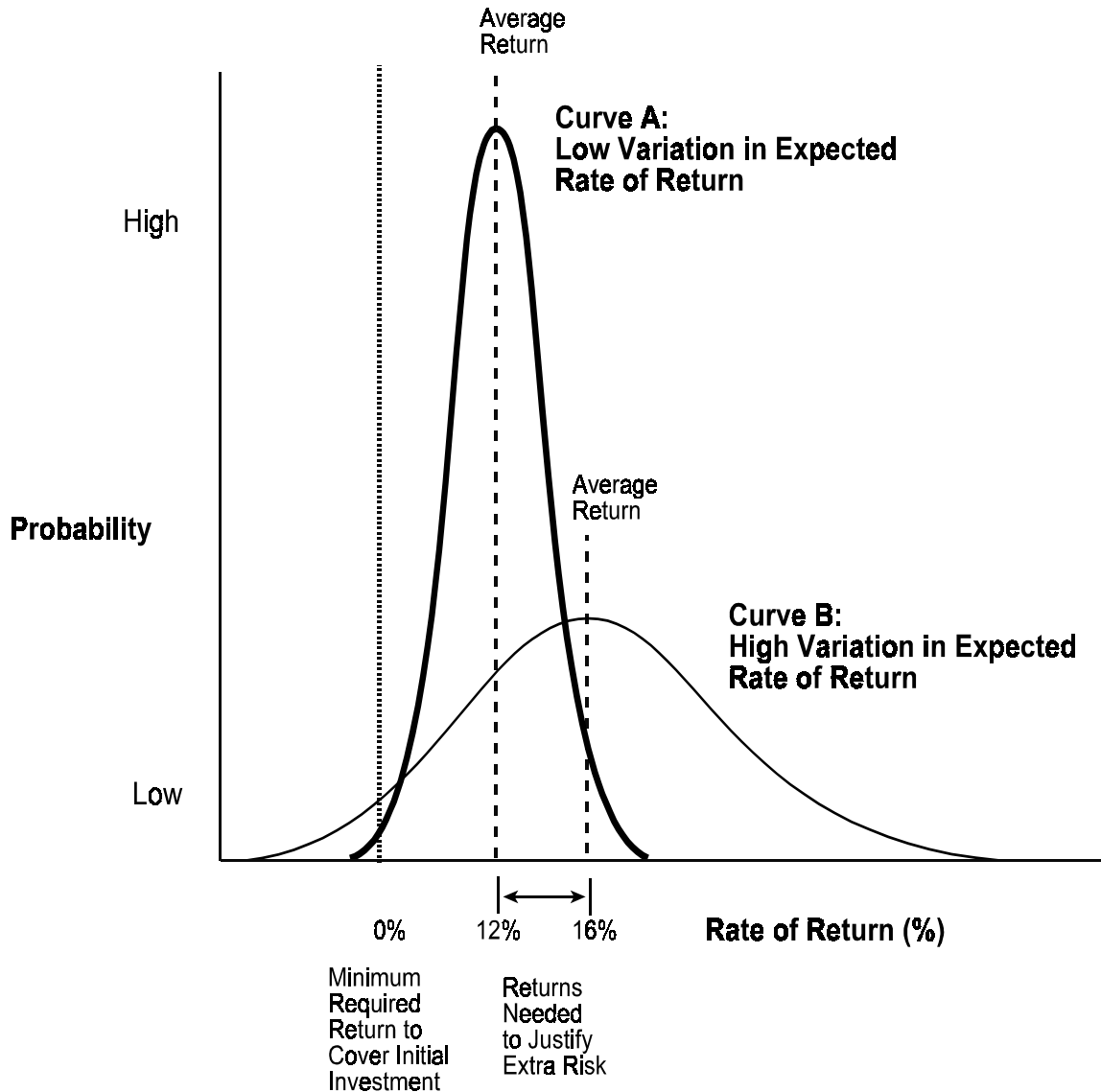
Some tools that can reduce the unforeseen impact of regulation on investment decisions include:

- **Promote competition:** Once competition is sufficient, there is no need for regulation. Alternatively, regulatory policies can be adapted to make the investment decisions of a regulated company more like those of a competitive company.
- **Introduce price cap regulation:** Price caps help to align risks, rewards, and penalties. Price regulation does not rely on cost allocations for the pricing of services.
- **Practice regulatory forbearance:** Examples include removing tariffing requirements for competitive services (thereby avoiding regulatory review of market prices) and removing regulatory review of new service deployment schedules.

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Executive Summary, cont.

Figure 1: Comparison of Low-Risk and High-Risk Investment Scenarios



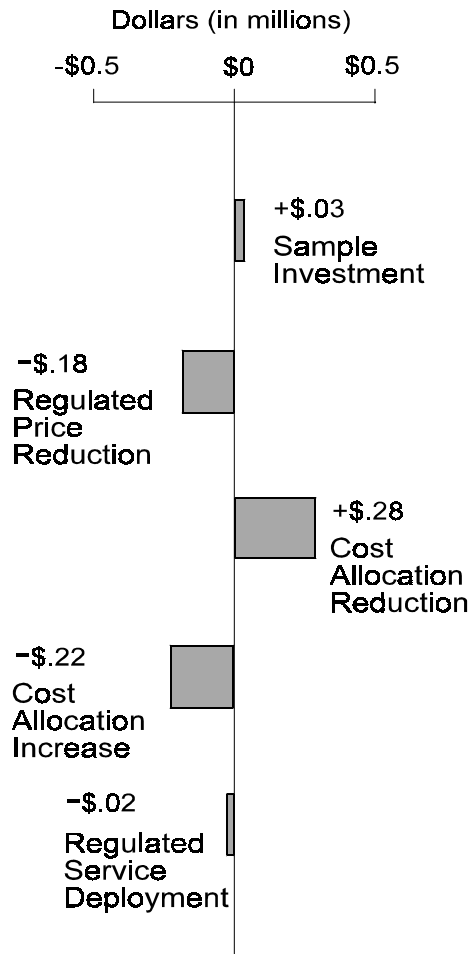
At zero percent return, the company recovers its initial investment, but earns no return on the investment.

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Figure 2: Sample Investment and Modeling Results: Net Present Value over 5 Years



General Assumptions: 5-year planning horizon and 10% discount rate.
 Regulated Price Reduction: 20% price reduction due to regulatory decisions.
 Cost Allocation: reduces or increases amount of initial investment by 25%.
 Regulated Service Deployment: mandated deployment increases the initial investment 33%;
 10% increase in variable operating costs; and 20% increase in revenues. Also assumes that market or territory is increased, but that demand is weaker in these areas.

Project Information

1996 Participants in the Telecommunications Industries Analysis Project

State Regulators	NARUC representatives from: Florida Public Service Commission Illinois Commerce Commission Iowa Utilities Board Massachusetts Department of Public Utilities New York Public Service Commission Washington Utilities and Transportation Commission
Regional Holding Companies	Bell Atlantic BellSouth NYNEX SBC Communications US WEST
Independents	GTE Kalona Cooperative Telephone Sprint Local Telecom Division
Interexchange Carriers	AT&T Sprint
Cellular and Wireless Carriers	360E Communications
Foreign Domestic	InfoCom Research NTT America
Local, National, and International Services	BT France Telecom North America
International Government Representatives	France
Materials Manufacturers	Corning
Academic	University of Florida

Sponsors:

Corporation for Public Broadcasting

Assisting with *public* data:

Bellcore
Federal Communications Commission
National Exchange Carrier Association
National Telecommunications and Information Administration

Project Information, cont.

Background on the Telecommunications Industries Analysis Project

The goal of the Telecommunications Industries Analysis Project is to provide information to support the development of alternative communications policies to meet the needs of stakeholders in an environment that includes competitive and non-competitive markets, federal and state regulatory jurisdictions, and a proliferation of new services made possible by technological advances. The purpose of the project is to produce research and analysis that will assist policy makers in making informed decisions.

The project provides a neutral forum for communications industry stakeholders to explore multiple viewpoints of selected issues. This forum incorporates the following elements:

- **Broad representation:** The current forum includes foreign and domestic local exchange carriers (LECs), interexchange carriers (IXCs), materials and equipment manufacturers, and federal and state regulators. The project actively seeks expansion of this forum to include other communications industry representatives such as competitive access providers, cable television companies, computer companies, electric power utilities, or publishers.
- **Multiple viewpoints:** Participants are required to play an active role in the research and analysis, to represent their own interests, to understand and to assist in developing others' perspectives, and to work toward the common goal of representing multiple views. Since papers reflect multiple viewpoints and ideas, authors and reviewers may not agree with particular views or approaches expressed in the papers. The objective is to lay out ideas and options to assist policy makers in their decisions.
- **Analysis and results of alternative policies:** Research tools, including a jointly produced data base and computer software models, and data analysis developed by this forum create a common language for examining issues. The common language allows the participants to focus on underlying issues. Appropriate computer software tools, including modifications to existing tools, are developed.
- **All data, analysis methods, and results are public:** Data used by this project must be publicly available on a nationwide basis. Research products become public domain information.
- **Neutral setting:** The project resides in a neutral setting, free of partiality, thereby ensuring objective and independent research.

The views expressed in this paper are those of the Telecommunications Industries Analysis Project. The information in this paper is intended to provide general public information and does not constitute or foretell the official position of any of the parties who contributed to this paper. The opinions expressed in this paper do not necessarily reflect the views of the FCC or of any other agency or institution.