

# 18

## Rejoinder

Jerry Hausman  
Massachusetts Institute of Technology

The FCC is spending hundreds of thousands, or perhaps even millions, of dollars, on constructing a computer model to set regulatory prices for the ILECs (incumbent local exchange companies). However, the economic foundation of the model is mis-specified and inappropriate because it does not take account of sunk and irreversible investments in telecommunications networks. The use of this incorrect regulatory approach is likely to cost consumers and businesses billions of dollars in lost consumer welfare due to decreased innovation and incorrect price signals. This outcome is the message of my paper, which seems to have received wide agreement from the conference participants, several of whom are cited here.

Professor William Baumol's contribution to this volume recognizes that sunk costs must be considered in a proper regulatory approach owing to the "profound implications for both theory and practice." Because Professor Baumol was an inventor of TSLRIC (which mutated into the TELRIC approach currently in use at the FCC) and supported the use of TSLRIC and TELRIC when the FCC decided on its current form of regulation in 1996, his paper is especially welcome.<sup>1</sup> Professor Baumol states that a cost component in the investment decision has been overlooked, so that the total costs of such decisions, and hence their appropriate prices, are normally underestimated. Professor Baumol brings in investment considerations of the IXCs (interexchange carriers), which he claims will attenuate the effect. However; I disagree with his conclusion because residential access lines cannot typically be reused for other customers. Nevertheless, we both agree that the options value of investment is a real cost that regulators must take into account if they are to make the correct decisions.

Dr. Richard Clarke similarly concludes in this volume that the application of real options theory is a valid approach in the current situation. He does not agree with my parameters for the model, but I leave this disagreement to future regulatory hearings where I would fully expect AT&T to argue for the lowest rates possible.

In his note, Professor Economides disagrees with Professor Baumol, his senior and august colleague, when he claims that the use of TELRIC guarantees economic efficiency. As Professor Baumol and I agree, TELRIC misses a cost that arises from

the sunk and irreversible nature of much telecommunications network investment (whether by an ILEC or IXC). Thus, its use cannot guarantee economic efficiency. Professor Economides asserts that sunk costs are not important in ILECs' investment decisions. This assertion is in direct contradiction to Professor Baumol's previous testimony for AT&T before the FCC that sunk costs are extremely important in investment decisions in telecommunications networks. Last, Professor Economides claims that the real options approach assumes a decision-making context by a monopolist; I disagree and provide references in my paper (footnote 31). So long as imperfect competition and sunk costs exist together, the option to wait will still have value.<sup>2</sup> Dr. Pelcovits interprets the use of the theory as "simply the latest in a series of arguments raised by the ILECs in an attempt to forestall competition for large segments of the local exchange market." Conspiracy arguments are looked upon much more favorably within the Beltway than in academia.

Professor Baumol, Dr. Clarke, and I agree that the application of real options theory to the regulation of ILECs is potentially important, given the presence of sunk and irreversible investments. The FCC should take note of these considerations because its current approach assumes that sunk and irreversible investments are not present. Otherwise, the FCC will be an example of Lord Keynes' observation, as quoted in Professor Samuelson's textbook, that:

The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist.<sup>3</sup>

In addition, the FCC is basing its regulation of ILECs on contestability theory, which does not take account of the effect of sunk and irreversible investments.<sup>4</sup> However, Keynes ended on an optimistic note:

But, soon or late, it is ideas, not vested interests, which are dangerous for good or evil.<sup>5</sup>

Hopefully, the FCC will realize the mistake that is making sooner, rather than later.

**NOTES**

- <sup>1</sup> See Affidavit of W. Baumol, J. Ordovery, and R. Willig on behalf of AT&T in FCC CC Docket No. 96-98, July 1996. Also see Baumol, William J. and J. Gregory Sidak. 1994. *Toward Competition in Local Telephony*. Washington, DC: The American Enterprise Institute for Public Policy Research.
- <sup>2</sup> While this discussion revolves around the application of real options methodology to sunk and irreversible costs, the methodology does not rely solely on this, but more generally can be applied in any situation in which management has flexibility. See Trigeorgis 1994 and 1996 and the references cited therein.
- <sup>3</sup> Samuelson, P.A. and W.D. Nordhaus. 1986. *Economics*. Boston: McGraw Hill, 12th ed., p. 12, quoting from Keynes, J.M. 1936. *The General Theory of Employment, Interest and Money*. London: Macmillan.
- <sup>4</sup> Indeed, contestability assumes away sunk costs – a contestable market is one in which entry and exit are costless, hardly a representation of the telecommunications industry.
- <sup>5</sup> *Ibid.*