

## Abstract

This paper examines the sources of productivity growth of the U.S. telecommunications industry over an extended period, from 1935 to 1987. A structural model is formulated that takes account of both the changes in cost and the demand side of the industry. The decomposition of the TFP growth presented in this study delineates the contribution of aggregate demand, information intensity of the economy, relative factor prices, the direct and the indirect effects of technological progress and R&D investment. The influence of changing output mix on the cost structure and the adjustment costs of changing quasi-fixed inputs like physical capital and R&D capital are discussed. Further, the impact of price-cost margin and the regulatory actions such as the 1984 divestiture of the Bell System on employment and productivity growth are analyzed. The evolution of mark-up behavior (i.e., price-cost margin) for toll and local services is studied by examining the movement of price and incremental cost over time.

Keywords: Productivity, Telecommunications, Rates of Return

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