

Abstract

Multiple output models of Canadian telecommunications production are estimated under different equilibrium specifications. A specification test is conducted between the short and long-run equilibrium models and the long-run equilibrium is rejected. In order to capture the nature of the disequilibrium a dynamic cost of adjustment model is estimated for Bell Canada. There are significant adjustment costs and it is estimated that for \$1.00 of capital expenditures it costs the carrier an additional \$0.30 to install the new capital into the production process.

Returns to scale, productivity growth and price elasticities are estimated from the dynamic cost of adjustment model. In this context there are significant economies of scale, with returns to scale estimated to be 1.50. Scale economies appear to be robust across equilibrium specifications. The average annual productivity growth rate is estimated to be 1.32, which is greater than the estimates from long-run equilibrium models, and consistent with estimates for total Canadian manufacturing.