THE IMPACT OF PUBLIC CAPITAL INVESTMENT ON PRIVATE INVESTMENT UNDER UNCERTAINTY: A PANEL DATA ANALYSIS OF DEVELOPING COUNTRIES

This dissertation investigates the determinants of private investment in developing countries with the emphasis on the role of public capital investment. To this end, this study uses two models of private investment. One is a conventional flexible accelerator model within a partial adjustment mechanism that has been frequently used in previous work. The other model is the modified neoclassical model within an error correction mechanism framework developed in this study. From a theoretical perspective, the error correction mechanism may better reflect the dynamic behavior of private investment because it takes the long-run level of private investment as a moving target. From practical perspectives, the error correction representation of the neoclassical models makes a clear distinction between the short run and long run dynamics, enabling us to identify the short run and long run effects of the variables in question. Also, it avoids the problem of spurious regression by performing cointegration tests.

The models are both modified to incorporate public investment as well as several relevant variables such as, measures of uncertainty and a proxy for economic freedom, in an effort to account for the effects of overall macroeconomic instability and the institutional and structural characteristics of developing countries. The models are both applied to a panel data from 19 developing countries over the 1982-1997 period.

The empirical results present strong evidence in favor of a complementary relationship between public and private investment in developing countries. Estimating the error correction

representation of the neoclassical model indicates that while public investment has a positive effect on private investment in the long run, its effect appears to be neutral in the short run.

Finally, this dissertation empirically investigates whether private investment behaviors in developing and industrial countries differ in response to increased public investment, employing a combined panel of 12 industrial and 19 developing countries over the 1982-1996 period. The results show that public investment substitutes for private investment in industrial countries both in the short run and long run. Therefore, there appears to be a stronger rationale for encouraging public investment in developing countries than industrial countries.