Open Lecture

Public Infrastructure and Economic Growth: A Dynamic Two-sector Model Applied to East Asian Economies

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This lecture attempts to propose a production function framework for analyzing the interrelation between public infrastructure expansion and private production growth and for identifying their externality effects. The framework consists of two versions of the dynamic two-sector model. Each sector is assumed to generate a spillover effect on the other. Growth equations are derived and estimated for seven East Asian economies over the period of 1979 to 1998. The empirical results indicate that both versions of the hypothesis about the existence of spillover effects can not be rejected, although the influences of private production sector on public infrastructure sector are relatively greater. This implies that keeping a balance between infrastructure expansion and private sector growth is crucial for rapid economic development. An important issue regarding infrastructure is how efficiently does the government manage the existing stocks.