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**Infrastructure and productivity: A nonlinear approach.** (English) Zbl 0929.62114  
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**Summary:** This paper incorporates infrastructure into the production function as part of the technological constraint rather than as a discretionary factor input. Our theoretical model specifies a technological growth rate as a nonlinear function of infrastructure and a time trend, the latter capturing the effect of all other variables on the growth rate in technology. The time trend and infrastructure are modeled so as to be interactive rather than additive. The functional form estimated allows for an ‘S’-shaped production function which embodies not only the properties of a long-run production function but also those exhibited in the short run.

**MSC:**

**62P20** Applications of statistics to economics  
**91B38** Production theory, theory of the firm

Cited in 2 Documents

**Keywords:**

[nonlinear production function](#); [technological index](#); [infrastructure](#)

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