

A growth model with corruption in public procurement: equilibria and policy implications.

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We study the relationship between corruption and economic growth: more precisely, in our model, the channel which transmits negative effects of corruption on economic growth, is identified in a corrupt management of public procurement. In order to be more precise, we analyze the effects of corruption in public procurement on growth via a reduction in the quality of public infrastructure and services supplied to the private sector. We study a discrete-time Solow growth model, considering that corruption, in lowering the quality of the public good, can reduce economic growth. Our model deals with strategic complementarity, whereby the strategic complementarity is identifiable with the fact that greater corruption implies a lower growth rate, lower tax revenues and, therefore, a lower monitoring level of corruption which incentivizes greater corruption. The resulting model is a two-dimensional, continuous and piecewise smooth map describing the evolution of the capital per capita and that of the corruption level. We study the model from the analytical point of view: we determine its fixed points, we study their local stability and, finally, we find conditions on parameters such that multiple equilibria co-exist. Our study aims at demonstrating that stable equilibria with positive corruption may exist, even though the State may reduce corruption by increasing the wage of the bureaucrat or by increasing the amount of tax revenues used to monitor corruption.