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## **OPEN ECONOMY GROWTH MODEL WITH HUMAN CAPITAL AND PUBLIC DEBT**

### **Abstract:**

This paper presents an endogenous growth model of an open economy with wide range of instruments of fiscal policy. We distinguish three factors of production: capital, raw labor, and human capital. Education expenditures and investment spending are crucial for long-run growth. Economic agents are continuously optimizing under conditions of imperfect information (externalities). The government may play the role of the benevolent social planner which may transform the second-best decisions of individual agents into the first-best outcome. To that end we search for the optimal values of certain parameters of fiscal policy, including public consumption, public spending on education, the size of public deficit (as percent of GDP). As the model incorporates some open-economy variables, it is very complex, and consequently does not have a closed-form (analytical) solution. We present a numerical procedure which may be applied to numerically solve the model. Finally, we present some preliminary simulations based on stylized values of parameters and exogenous variables.

### **Keywords:**

fiscal policy, economic growth, human capital, public deficit, government debt

**JEL Classification:** E13, E62, F43