Credit Constraints and Fiscal Policy in a Growth Model with Endogenous Fertility

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This paper investigates economic growth under liquidity constraints by taking into account the choices of fertility, human capital and savings. In a model of four overlapping generations, parents are altruistic towards their children and finance their education investment. The government provides education subsidies to young adult parents and levies taxes on income of the adult generation.

Sensitivity analysis on borrowing limits and tax parameters highlights conflicting effects on the main endogenous variables at steady state. Lower liquidity constraints decrease savings and capital accumulation. From model simulation, we derive an inverted U-shaped curve relating the borrowing limits to fertility, education and growth, meaning that financial reforms in the less developed countries have positive effects on the economy in the long-run, even if they raise fertility and reduce savings. Greater government subsidies to human capital investments and lower income taxes have positive effects on savings and fertility.

Numerical simulations show that: human capital investment has an inverted Ushaped relation with income taxes and education subsidies; economic growth decreases with greater income taxes and increases with higher education subsidies.