

# Precaution, Optimal External Debt and Fully non-Ricardian Behavior and their Application to International Macroeconomics<sup>1</sup>

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## Abstract

The model is based on the Taylor-series approximation of Skinner (1989). It is shown that in a model of infinite horizon, uninsurable labor income risk, and precautionary behavior stable steady state solutions of plausible magnitudes for foreign financial asset ratios exist for both creditor and debtor countries with idiosyncratic growth rates. In this case individual decisions do not necessarily add up to social optimum. However, the social optimum can be enforced efficiently through fiscal policy, because with an income-tax system behavior is fully non-Ricardian: fiscal saving appears approximately one-for-one in aggregate saving.

The main finding of the model is that risks in international financial positions exist not only on the creditor's side, but as well on the borrower's side. The model shows that under reasonable assumptions on parameters the precautionary motivation of borrowers alone is sufficient to prevent a country from taking up the extremely high debts that otherwise would be the case in a deterministic model.

Some scenarios are calculated with the model for a country that is in a catching-up growth period. It is shown that although an increasing debt is justified by the high growth prospects, the growth of the debt ratio has to turn into negative already during the catch-up phase and the debt has to have been fully repaid when the country reaches the growth path of the mature economies.

JEL Classification: E0, E2, E6, F4, H5, H6

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