

**Title:**

The Sovereign Debt Burden: A Literature Review in Search of the Theory

**Authors:**

Matteo Tomaselli, Roberto Tamborini

University of Trento (Italy), Department of Economics and Management

**Extended abstract:**

This paper surveys the theoretical literature about the impact of sovereign debt on the economic system, with particular attention to economic growth. Our main goal is to understand how macroeconomics theory has dealt with the questions: "How does sovereign debt affect economic growth?", "Is economic growth consistently stifled by public debt?", "When is public debt too high?", or, in only one question, "Is public debt a burden for economic growth?". Therefore, we want to provide a background on which sovereign debt empirical analyses as well as related policy decisions should be based.

Starting from some crisis episodes, i.e. the Latin America debt crises and the European sovereign debt crisis, we develop the concepts of sovereign debt sustainability and sovereign debt efficiency and, accordingly, we distinguish between three major possible scenarios: 1) A sustainable outstanding sovereign debt and an efficient past debt trajectory; 2) A non-sustainable outstanding debt and an inefficient past debt trajectory; 3) A non-sustainable public debt that may be sustainable if proper fiscal adjustments are carried out. Within these three cases, we present the implications of the standard economic theory (Neoclassical, Keynesian, and Ricardian) and non-standard economic theories (for instance, the expansionary fiscal consolidation hypothesis), in addition to the "Burden view", the debt overhang statement in relation to the Heavily Indebted Poor Countries, and, to a lesser extent, multiple equilibria models and self-fulfilling expectations.

Besides the review of the existing debt-growth approaches, we provide support to the theoretical statements that arise in handling with scenario (1) and scenario (3) by proposing two endogenous growth models, freely inspired to Barro and Sala-I-Martin (1998, p.152). In the two-periods model proposed for scenario (1), we introduce a sustainable and efficient public debt (financed through taxed or non-taxed bonds) into the general framework proposed by Barro and Sala-I-Martin, and we analyse how public debt changes the standard results and affects the model general equilibrium. In the model for scenario (3), we further develop our method by extending the previous model to three periods, and by allowing debt to become unsustainable but easily adjustable. Again, we study how public debt affects the equilibrium of the model, and how the impact of the required fiscal corrections affect the growth rate of the stylized economy.

Our main findings can be summarized as follows: a) when public debt is both sustainable and efficient, its level and the related debt-to-GDP ratio have no relevance on their own and, as a consequence, they do not represent a satisfactory measure to compare different real-world situations; b) the existence of a general too-high debt threshold is, so far, theoretically unjustified, regardless of the fact that debt is or is not efficient and sustainable, and c) a debt reduction policy may be required only if debt is not sustainable, or if it has become non-sustainable, but its overall impact may turn out to be negative. According to our position the study of the relationship between debt and growth deserves more attention, beyond thinking that general debt-thresholds exist.

**Key words:**

Sovereign debt, Debt burden, Debt sustainability, Debt efficiency, Ricardian equivalence, Economic growth, Endogenous growth models.

**JEL classification:**

E12, E13, H62, H63