Optimal Correction of the Public Debt and Fiscal Resilience Measures*

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Abstract

This paper derives the optimal response of the primary budget surplus to changes in the debt-to-GDP ratio in a stochastic model of debt. Under the optimal solution the surplus reactivity to the debt-to-GDP ratio is independent of the debt-GDP ratio itself, but its size depends on economic fundamentals and on the degree of uncertainty surrounding the impact of fiscal policies. We propose two measures of fiscal resilience under the optimal control that may be used to gauge the soundness of a consolidation plan and as early warning indicators of fiscal imbalances.

Keywords: Debt-to-GDP Ratio, Optimal Control, Fiscal Consolidation, Resilience.

JEL Classification Codes: H62, H63, E63.

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