

Evaluating the impact of alternative fiscal policy measures on public debt and on GDP with an input-output based model – application to Portugal

Topic: Input-Output Analysis for Policy Making

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Following a public debt crisis, associated to soaring interest rates, after a decade of low economic growth and accumulated public and private deficits, Portugal has been involved since 2011 (until 2014) in an Economic and Financial Adjustment Programme (PAEF), under the joint assistance of the European Commission, ECB and IMF (the so-called Troika), aimed at restoring financial market confidence and at promoting sustainable economic growth and financial stability. The Programme has been acting on three fronts: fiscal consolidation, stabilisation of the financial sector and structural reforms.

In this paper we evaluate the impact of various alternative fiscal policy measures on public debt and on GDP using an input-output based model calibrated for Portugal, with the purpose of finding the “best” policies, in terms of having the lowest negative impact on GDP while attaining the same goal for public debt reduction and, therefore, making a contribution for policy planning.

This model is composed of a system of simultaneous equations, considering the interaction between macroeconomic and fiscal variables. It includes an input-output based block (determining output, employment and taxes, net of subsidies, on products by sectors), macroeconomic equations determining private disposable income and consumption, GDP, total employment and unemployment, and a public finance block which determines public deficit and debt. Model coefficients are estimated on the basis of a system of I-O tables for Portugal, 2008, as well as of other macroeconomic data.