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Endogeneity and the dynamics of Credit Default Swaps: Empirical evidence for the Eurozone sovereign debt crisis 2008-2013

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Abstract

In this paper we provide evidence on the pricing of sovereign risk for the Eurozone countries, using credit default swaps (CDS) as proxy variable, and taking into account the endogenous relation among CDS, the respective government bond yield and the fiscal space (debt/tax base or deficit/tax base). On the sample of the Euro area countries' data used covering the period 2008Q1 - 2013Q2 we apply the dynamic panel data econometric methods. We actually compare the fixed or random effects (FE or RE) or feasible generalized least squares (FGLS) estimations with those of the system generalized method of moments (system-GMM) more appropriate for our dataset.

The dynamic endogeneity is always present verified from the statistically and economically significant lagged CDS in the set of regressors no matter what the period of estimation was, i.e., the whole sampled period of 2008-'13 or the crisis one of 2008-'10 or even the post-crisis of 2011-'13. The simultaneity also detected in most of the cases among CDS, yield and debt to tax base, while it rarely found significant for deficit to tax base as well as during the sub-periods. Forward looking expectations represented by a dummy expressing the downgrade rating of the credit rating agencies was also proved statistically and economically significant, especially, if in the system was present the debt to tax base variable and not the deficit one. Discrimination's evidence between South-West Euro Area Periphery (SWEAP, Greece, Italy, Spain, Portugal and Ireland), and non-SWEAP member countries found mainly in the non-system GMM estimations. Main findings of our work are consistent with other similar studies. Finally we discuss the philosophical issue of the meaning of the CDS.

Keywords: credit default swaps (CDS), credit rating agencies, market pricing of risk, Eurozone crisis, south-west euro area periphery (SWEAP), system-GMM dynamic panel data estimator.

JEL Classification: F30, G01, H63

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