â€œA Comprehensive Comparison of VAT Reforms Under Different Market Conditionsâ€•

Topic: IO modeling: Computable General Equilibrium Modeling and Social Accounting Matrices
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Research Motivation:
As a way to avert the uncontrolled increase in public deficits as a result of the past economic downturn, many European Union Members implemented deep reforms in their respective fiscal systems. These reforms restricted (and even reduced) public expenditure but they also changed the tax structure and increasing the tax rates of both direct and indirect taxes. The taxes most affected by these reforms were those that exhibit the highest revenue generation capacity. In the context of Spain, for instance, the Value Added Tax (VAT) experienced two reforms (the first one in 2010 and the second one, in 2012) that comprised subsequent raises in the standard and reduced VAT rates. A similar reform was undertaken in the context of the Personal Income Tax. In either of the two cases, these reforms did not encompass any changes in the structure of the taxes.
This is the reason why many researchers have argued that these reforms enacted by the Spanish government at that moment were in fact a â€œlost opportunityâ€• to improve the degree of efficiency of the Spanish tax system. This was specially the case of the VAT reforms. In this regard, some authors (Conde-RuÃz et al. 2015) stress that replacing the three existing VAT rates i.e. the over-reduced, the reduced and the standard VAT rate by a single rate would have increased the degree of efficiency of this indirect tax while boosting its revenue capacity. The statement of these authors lies in the fact that a single VAT rate would reduce the potential substitution effects that makes this type of indirect tax remarkably distorting among the different tax instruments.

Methodology, Data, Research Question(s) and the Novelties of the Research:
Leaving aside the potential distributive effects (at the moment) and following the previous work by Guerra (2018), the goal here is to shed some light on this debate, evaluating and thus comparing the potential effects in terms of efficiency of these two VAT reforms: the actual VAT reform and that proposed by Conde-RuÃz et al. (2015).
In doing so, we carry out an original empirical exercise using a static applied general equilibrium model (AGEM) with a newly data set constructed by the authors from official data: A Social Accounting Matrix (SAM) for the Spanish economy. This original empirical exercise consists in enabling a comprehensive comparison of the effects of the actual and proposed VAT reforms by implementing a two-step simulation strategy. In the first step, we evaluate the actual VAT reform implemented by the Spanish government. In the second one, we introduce the structure of the alternative VAT reform in such a way that the change in the VAT rates is endogenously determined yielding exactly the same amount of public deficit (in real terms) obtained under the first step. This simulation strategy known in the literature as equal yield simulation makes the comparison of the results to be more sensible.
The second novelty of our research lies in exploring the degree of sensitivity of our results with respect to the market conditions assumed in the AGEM: competitive and non-competitive scenarios. Related to this, previous analyses have shown that the potential effects of fiscal policies are quite sensitive to the assumptions behind the supply structure and more specifically to the presence of economies of scale. This type of sensitivity has been explored for labour taxes, i.e. social security contributions (GÃ³mez, 1999; Bajo-GÃ³mez, 2004) but, to the best of our knowledge, this has not been the case for alternative VAT reforms using the equal yield simulation.
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