Fiscal devaluation in the Euro area: The role of rigidities, non-tradables, and social security contributions

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ABSTRACT

This paper explores the trade-balance effects of a unilateral fiscal devaluation in a monetary union model with two symmetric countries where the law of one price holds. The paper differs from existing studies in three ways: First, I explore a decrease in the employees' share of social security contributions (SSC) and show that the view of assuming a decreases in the employers' share to be more effective does not hold to be true. Second, I explicitly explore the role of nominal rigidities and show that a devaluation implemented in a simple model with flexible prices and wages has noticeable real effects. Moreover, the results indicate that inducing nominal rigidities in fact limits the effectiveness of a fiscal devaluation in raising the trade balance if conducted as a decrease in the employees' share of SSC. And third, I allow for a different taxation of tradable and non-tradable goods and show that increasing value added taxes (VAT) in a way which affects tradables more than non-tradables is a more effective measure – a result which is at odds with propositions frequently found in literature to abolish reduced rates of VAT. I use these insights to simulate a fiscal devaluation implemented in Euro area countries featuring trade balance deficits in 2015 by using a more elaborate New-Keynesian 2-country model and find that the effectiveness of a fiscal devaluation crucially depends on the fiscal instruments used.

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1. Introduction

The lasting divergence in intra-EU trade balances between member states of the European Union gives rise to a continuous policy debate as to whether European governments should aim at reducing their external deficits. Jaumotte and Sodsriwiboon (2010) and Eichengreen (2010) argue that external deficits could reflect domestic distortions (as e.g. asset price bubbles due to transitory booms or a too optimistic view of future growth rates). In this case, the accumulated high levels of foreign debt could not be paid back through high productivity growth but could resolve in serious liquidity problems. Related to this, high deficits may pose a potential danger as the occurrence of a sudden stop of foreign financial inflows would force the deficit countries to implement strong austerity measures. Furthermore, external imbalances could reflect competitiveness problems which would require a painful period of diminished growth to allow a gradual adjustment. Jaumotte and Sodsriwiboon (2010) find that the deficits in southern European-Union countries are too large to be explained by fundamentals and that these deficits tend to remain high in the medium-run. Holinski et al. (2010) and Holinski et al. (2012) confirm this view by stressing that the increasing imbalances in the Euro-zone could be seen as an indicator of economic divergence and Arghyrou and Chortareas (2006) find the real exchange rate to be a prominent determinant of current

account imbalances indicating that underlying the external imbalances could be competitiveness losses. Based on these insights of recent studies, policy actions seem to be in place at least for some Euro-zone countries to reduce their substantial external deficits.

This paper builds on the huge strand of literature examining the possible trade-balance-improving effects of a fiscal devaluation, meaning a budget-neutral tax shift from direct to indirect taxation. In a first step, the study focuses on a stylized monetary union model with two symmetric countries where the law of one price holds. The analysis differs from existing devaluation literature in three ways: First, the role of the employees' share in social security contributions (SSC) is explored and compared to the effects of a decrease in the employers' share. Second, the model does not only include non-tradable goods but allows for a different taxation of tradable and non-tradable consumption goods and explores their effects on the trade balance. Third, the paper explicitly explores the role of nominal rigidities for the effectiveness of a fiscal devaluation in raising the trade balance. In a second step, these insights are used to simulate a fiscal devaluation in a more elaborate 2-country model calibrated to Euro Area 2015 data.

There is a large body of studies exploring the effects of a fiscal devaluation on trade-balance- or current-account-deficits. While almost all studies[1] find a positive short-run effect on the trade balance or the current account, the long-run effect is more controversial. The European Commission (2011a) uses a 3-country QUEST model to investigate the effects of a fiscal devaluation shifting revenues equal to 1% of GDP from employers' SSC to VAT and finds that the trade balance improves, but only in the short-run. Engler et al. (2014) perform the same simulation in a 2-country New-Keynesian model where the countries are calibrated to represent central-northern and southern European countries and find a short-run improvement in the trade balance of 0.2 percentage points of GDP. Gomes et al. (2016) simulate the tax shift using the EAGLE model and find that it results in an improvement in the Spanish trade balance by 0.5 percentage points of GDP after two years while there is no long-run effect. Studies finding a long-run effect contain e.g. the European Commission (2014) who use the QUEST model for Spain to simulate a fiscal devaluation implemented as a reduction in income taxation and an increase in the VAT and obtain a long-run improvement in the trade balance by 0.5 percentage points of GDP. Furthermore, Klein and Simon (2010) find a small long-run effect on the trade balance by about 0.08 percentage points of GDP for France and the results of the Bank of Portugal (2011) indicate a positive long-run effect on the Portugese trade balance by using the PESSOA model.

This paper is related to various issues of devaluation literature: First, it is common sentiment that the effectiveness of a devaluation requires some degree of rigidity in nominal wages (e.g. International Monetary Fund, 2011; Calmfors, 1998; De Mooij and Keen, 2012). It is typically argued that flexible wages would impede a devaluation by offsetting the imposed competitiveness-enhancing effect as workers would aim at increasing their nominal wages both due to the reduction in the employers' SSC and due to the increase in the VAT. The reduction in the employers' share reduces labor costs and, consequently, offers a good bargaining position for workers while the increase in the VAT increases consumer prices and, hence, reduces real wages such that in both cases workers would aim at being compensated by higher nominal wages. This could result in a real producer wage being the same as before the tax-shift which would render the devaluation ineffective in affecting real variables. There are only very few studies explicitly exploring the effect of the degree of nominal rigidity on the effectiveness of a devaluation: Engler et al. (2014) simulate a fiscal devaluation in a New-Keynesian 2-country model and find that the trade-balance-effect decreases with decreasing wage rigidity. The CPB, CAPP, CASE, CEPII, ETLA, IFO, IFS, IHS (2013) explore the sensitivity of trade-balance-effects of a fiscal devaluation to the degree of wage rigidity and find that the effect varies over time as well as between models. Both focus, however, on the employers' share in SSC and do not regard the effect of price rigidity.

Second, related to the assumption of the effectiveness of a fiscal devaluation requiring some degree of rigidity, literature frequently assumes a decrease in the employers' share in SSC to be a more effective measure in raising the trade balance than a reduction in the employees' share (see e.g. European Commission, 2006). As far as I know, there is no paper explicitly exploring the differences between the effects of reducing the employers' share in SSC versus the employees' share. Langot et al. (2012) use a small open economy model with labor market search frictions and find that a reduction in the employees' share in SSC mainly induces the same effects as a decrease in the employers' share.

Finally, there is a small strand of literature exploring the practical implementation of the VAT increase, meaning which rate to increase. The VAT, after all, is not only the VAT rate but consists of at least two or three different rates applied to different categories of goods and services. In the European Union, the application of value added taxes is restricted by the VAT directive given by the council of the European Union defining that each country may raise a standard rate of VAT as well as one or two reduced rates. In the Euro-zone, currently all countries make use of at least one reduced rate.[2] Concerning a fiscal devaluation, this should not matter at all if the reduced rates were distributed equally between sectors. This, however, is not the case. In fact, tradable goods are taxed more heavily than non-tradable goods as the majority of categories on which reduced rates may be applied can be classified as non-tradables.[3] Consequently, if considering an increase in the VAT, it should be contemplated which rate or rates of VAT should be increased.

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[1] Studies finding a small worsening of the trade balance are the European Commission (2008) simulating a 4-regions QUEST model and the CPB, CAPP, CASE, CEPII, ETLA, IFO, IFS, IHS (2013) by using the NiGEM-model for different countries.

[2] See European Commission (2017): VAT rates applied in the member states of the European Union.

[3] Using the calculations by IAS, CAPP, CASE, CEPII, ETLA, IFO, IFS (2013b) of average VAT rates for each COICOP category and following the definition of goods and services as tradable or non-tradable of Piton (2017).