



**On the Economic and Budgetary Impact
of Fiscal Devaluation in Portugal**

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Abstract

In this paper we show that fiscal devaluation, of the most disputed issues in the current policy debate in Portugal, has the technical capacity to stimulate employment and investment and increase GDP while improving the foreign account position. More importantly, as this has been a point ignored in the debate, it can significantly contribute towards budgetary consolidation.

1. Introduction

Portugal is currently in the early stages of implementation of the Memorandum of Understanding [see Government of Portugal (2011a)], which details the conditions of its international bailout. A central feature of this document is a series of substantial austerity measures, both public spending cuts and tax revenue increases, designed to control soaring public debt. These measures, as necessary as they may be, are likely to lead to adverse economic effects. This is a matter of great concern since the need for fiscal consolidation itself arises in good part due to a dismal economic performance.

In this context, the Memorandum of Understanding introduces the concept of fiscal devaluation which is now official policy [see Government of Portugal (2011b)]. Fiscal devaluation consists of a reduction in the firms' social security contribution rate (TSU - Taxa Social Única, hereafter) coupled with a revenue-neutral increase in the value added tax revenues

(IVA - Imposto sobre o Valor Acrescentado, hereafter). This policy is termed fiscal devaluation because it mimics the effects of monetary devaluation, an option not available to the domestic authorities. The reduction in the TSU is expected to lower labor costs, encourage domestic production, and make domestic goods more competitive while the increase in IVA is expected to discourage domestic consumption. Together, they are expected to encourage production and employment while improving the foreign account position.

In this paper we analyze the effects of fiscal devaluation in the context of a numerical dynamic general equilibrium model of the Portuguese economy. This model incorporates fully dynamic optimization behavior, endogenous growth, and a detailed modeling of public sector activities. It follows in the footsteps of computable general equilibrium modeling in its ability to consider the tax system in great detail. It incorporates many of the insights of the endogenous growth literature, in particular, that public policies have the potential to affect the fundamentals of long term growth. Previous versions of this model have been used to evaluate the impact of tax incentives [see Pereira and Rodrigues (2002, 2004)], social security reform [see Pereira and Rodrigues (2007)], and environmental tax reform [see Pereira and Pereira (2011a, 2011b)]. A complete model description can be found in the above references.

Fiscal devaluation has recently received a great deal of attention in the literature due to the current concerns in many of the Euro-zone countries [see, for example, Franco (2011), Stahler and Thomas (2011), and Farhi, Gopinath and Itskohi (2011)] and more generally to the issue of shifting from direct to indirect taxation in the context of a monetary union [see, for example, Lipinksi and Leopold von Thadden (2009)].

Our results are relevant for the general debate as well as to the policy debate in Portugal. First, we quantify the effects of fiscal devaluation on domestic economic performance and the

foreign account position. This includes the determination of the appropriate magnitude of the fiscal devaluation and the corresponding revenue-neutral increase in IVA. Second, and more importantly since this is a point neglected in the current debate, we analyze its budgetary impact. Our approach accounts for behavioral responses which affect the size of all the different tax bases. Thus, the computation of the IVA replacement rates accounts for these feedback effects. In addition, due to its effects on other tax bases, fiscal devaluation policies are not deficit neutral even though they are revenue neutral in terms of the TSU and IVA tax bases.

2. Simulation Results

We consider first the effects of fiscal devaluation under the most common scenario in the policy debate - a 4 percentage point reduction in the TSU and a matching increase in IVA. We consider then the effects of alternative scenarios with TSU reductions from 1 to 10 percentage points, which allows for the identification of the levels of intervention necessary to achieve different possible policy targets. All variables are measured as percentages of the GDP and all changes are in percentage points (p.p.). The exception is the labor market effects which are measured as percent change for baseline levels. We focus on the medium term effects, specifically by 2020.

We find that reducing the TSU rate by 4.0 p.p. requires a 2.0 p.p. increase in the IVA rate on private consumption. The decrease in the TSU leads to an increase in employment of 0.38% and an increase in wages of 2.09%. Despite these increases the TSU reduction allows for an increase in the firms' net revenues and an increase in private investment of 0.07 p.p.. These two forces contribute towards an increase in GDP of 0.27 p.p..

On the consumption side, despite the higher IVA, private consumption remains stable. This is the result of higher private income as the households benefit from higher employment levels and wages and increased firms' profits. Overall, as increases in domestic production exceed the increases in domestic spending, trade imbalances and foreign debt are reduced by 0.24 p.p. and by 2.91 p.p., respectively.

Finally, fiscal devaluation leads to larger tax bases and increases tax revenues by 0.44 p.p.. In particular, with the increase in employment and wages, workers' social security contributions increase by 0.19 p.p.. Similarly, personal income tax revenue increases by 0.07 p.p.. Under stable public spending patterns, greater tax revenues translate into a 0.59 p.p. reduction in the budget deficit and a 5.48 p.p. reduction in public debt.

Naturally, the revenue-neutral changes in IVA increase as we consider greater reductions in the TSU, from 1 p.p. to 10 p.p.. They range from 0.5 p.p. to 5.2 p.p. increases. The lower unit labor costs boost employment by between 0.10% and 0.97% while the increase in firms' operating surplus allows for a 0.02 to 0.18 p.p. increase in private investment. Overall, GDP improves by between 0.07 p.p. and 0.69 p.p.. These positive output effects, coupled with stable private consumption, lead to a reduction in the current account balance of between 0.06 p.p. and 0.62 p.p. which translates into reductions in the foreign debt between 0.72 p.p. and 7.4 p.p..

In addition, the positive economic effects lead increased tax revenues which, in an environmental of stable public spending patterns, leads to a 0.15 p.p. to 1.53 p.p. reductions in the budget deficit. This translates into a reduction in public debt between 1.36 p.p. and 13.87 p.p..

These alternative results are useful in determining the magnitude of the fiscal devaluation necessary to accommodate different policy targets. For example, if the objective is a permanent

increase in GDP of 0.48 p.p., a 7 p.p. reduction in the TSU would be necessary. If the objective is a permanent increase in employment of 1 p.p., a 10 p.p. reduction in the TSU would be required.

3. Final Remarks

Fiscal devaluation has the technical capacity to stimulate employment and investment and increase GDP while improving the foreign accounts position of the Portuguese economy. We find that a 4 p.p. decrease in the TSU matched by a 2 p.p. increase in the IVA on private consumption, i.e., a fiscal devaluation corresponding to 1% of GDP, leads to a permanent increase in GDP of 0.27 p.p. and a similar permanent decrease in the current account position. Employment would permanently increase by 0.38%, which, corresponds to about eighteen thousand permanent jobs. More importantly, as this aspect has been ignored in the current policy debate, fiscal devaluation can significantly contribute towards budgetary consolidation as it induces a permanent increase of 0.44 p.p. in tax revenues and a 0.59 p.p. decrease in the public deficit. As a term of comparison, these permanent tax revenue effects are of the same order of magnitude each year as the revenues to be raised in 2011 under the extraordinary tax recently introduced by the government.

Although our results provide rather timely information on the effects of fiscal devaluation, there are several important issues that we do not address. First, we consider uniform reductions in the TSU across all sectors. While this is consistent with the legal constraints in the EU, it would be interesting to consider the effects of more targeted policies. Second, we focus on changes to the IVA on aggregate private consumption. The issue of restructuring the IVA among different consumption goods, something important also because of

the potential regressive effects of the IVA increases, is not addressed. Third, we assume that both current and investment public spending grow at an exogenous rate. It would be interesting to consider alternative scenarios and how the budgetary situation would be affected. Finally, we ignore the impact of reducing the TSU on the sustainability of social security accounts.

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Table 1 - Effects of Fiscal Devaluation: Central Scenario

	(percentage point change)			
	2015	2020	2025	2030
Labor Market				
Employment	0.39	0.38	0.37	0.36
Wage	2.07	2.09	2.10	2.11
GDP and Expenditures				
GDP	0.24	0.27	0.30	0.32
Private Consumption	0.00	0.01	0.03	0.05
Private Investment	0.07	0.07	0.07	0.07
Foreign Account				
Foreign Debt	-2.13	-2.91	-3.73	-4.54
Current Account Deficit	-0.19	-0.24	-0.29	-0.33
Public Account				
Public Debt	-3.56	-5.48	-7.46	-9.49
Budget Deficit	-0.49	-0.59	-0.71	-0.85
Total Tax Revenues	0.41	0.44	0.47	0.51
Personal Income Tax	0.07	0.07	0.06	0.05
Corporate Income Tax	0.01	0.01	0.01	0.01
Value Added Tax – Total	1.10	1.20	1.31	1.44
Firms' Social Security Contributions	-0.94	-1.02	-1.11	-1.22
Workers' Social Security Contributions	0.17	0.19	0.20	0.22

Table 2 - Effects of Fiscal Devaluation: Alternative Scenarios

(percent point change by 2020)

Fiscal Devaluation Scenario										
Change in TSU	-1.00	-2.00	-3.00	-4.00	-5.00	-6.00	-7.00	-8.00	-9.00	-10.00
Change in IVA	0.50	1.00	1.50	2.00	2.50	3.00	3.60	4.10	4.60	5.20
Labor Market										
Employment	0.10	0.19	0.29	0.38	0.48	0.58	0.67	0.77	0.87	0.97
Wage	0.51	1.03	1.56	2.09	2.62	3.17	3.72	4.27	4.83	5.40
GDP and Expenditures										
GDP	0.07	0.14	0.20	0.27	0.34	0.41	0.48	0.55	0.62	0.69
Private Consumption	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Private Investment	0.02	0.03	0.05	0.07	0.09	0.10	0.12	0.14	0.16	0.18
Foreign Account										
Current Account Deficit	-0.06	-0.12	-0.18	-0.24	-0.30	-0.37	-0.43	-0.49	-0.56	-0.62
Foreign Debt/GDP	-0.72	-1.45	-2.18	-2.91	-3.65	-4.39	-5.14	-5.89	-6.64	-7.40
Public Account										
Budget Deficit	-0.15	-0.29	-0.44	-0.59	-0.75	-0.90	-1.06	-1.21	-1.37	-1.53
Public Debt/GDP	-1.36	-2.73	-4.10	-5.48	-6.86	-8.25	-9.65	-11.05	-12.45	-13.87