THE IMF APPROACH TOWARDS THE STRUCTURAL DEFICIT

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Abstract: *The aim of this paper is to assess the methodologies and techniques used by the International Monetary Fund in order to estimate the structural fiscal balance, which is crucial for evaluating fiscal sustainability. Ensuring fiscal discipline gained a major importance especially during the recent financial crisis. In the case of the Economic and Monetary Union in Europe the previous indicators were not enough to establishing an environment of fiscal discipline. Therefore, new limits regarding the structural deficit were imposed through the Treaty of Stability Coordination and Governance in the Economic and Monetary Union. However, experience shows that removing cyclical and other transitory elements from revenues and expenditure is not an easy task. This study will provide a clear understanding of the methodology used by the International Monetary Fund in order to quantify the structural deficit, its shortcomings, a comparison with the results obtained by the European Commission and recommendations. Furthermore, it will show that, despite the limits of the evaluating the structural fiscal balance, this represents the right indicator for stating where the economy is heading over the medium term.*
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INTRODUCTION

The importance of structural fiscal balances has been recently elevated by the Treaty of Stability, Coordination and Governance in the Economic and Monetary Union. Fiscal rules previously imposed by the Stability and Growth Pact were not enough in order to ensure the soundness of public finances in the euro area. Therefore, the Fiscal Compact introduced a new requirement referring to a limit of maximum 0.5 percent of GDP for the annual structural deficit. This limit is extended to 1 percent of GDP for countries that register debt levels below 60 percent and confront with low sustainability risk. In addition, automatic correction mechanisms have been established in case the threshold is breached.

Targeting the structural deficit does not represent a new and uncommon approach. According to the International Monetary Fund, some variants of the rules regarding structural balance targets are used by about 11 percent of the countries (IMF, 2009).

The underlying reasons that make the structural fiscal balance a better indicator for fiscal discipline are related to the fact that it provides a clear guidance as to the health and direction of fiscal policy, helps determine the size and direction of automatic stabilizers and it is a key component in the assessment of long-run fiscal sustainability by providing a view of what the fiscal balance is likely to tend towards as temporary factors dissipate (IMF, 2011).

Although it promises to tighten the fiscal discipline for the countries in the European Union, the structural fiscal balance is characterized by difficulties related to the methodologies used in order to estimate it.

Our paper presents the IMF's approach for computing structural fiscal balances and its shortcomings. First, we define the concepts used in estimation. The rest of the paper focuses on the calculation and the use of structural fiscal balances by the International Monetary Fund.

2. THE CONCEPT OF STRUCTURAL DEFICIT

The structural deficit represents a fundamental indicator for nominal convergence, through reflecting how the public finances are administrated. Taking into consideration that some of the euro area member states have exceeded the 3% of GDP limit for the government's deficit, as a result of inappropriate public finances management, it has been decided to monitor a new indicator – the structural deficit.

A low level of government deficit or even a government surplus can hide the existence of high imbalances. This is the case when the budgetary balance is the result of a favourable conjuncture - high public revenues accumulated during economic expansion.

Therefore, the consolidated government deficit does not represent an appropriate indicator for evaluating the fiscal policy. It reflects both the influence of permanent factors and transitory ones, without allowing us to distinguish among them. In order to determine if the deficit or the surplus is temporary and cyclical or permanent and structural, the economists have developed the concepts of structural budget deficit and surplus and cyclical budget deficit and surplus. By removing one-off revenues and expenditure, cyclical factors, and potentially other temporary effects from the headline fiscal balance, structural balances help judge the underlying fiscal position.

Structural or cyclically adjusted balances are typically calculated in order to remove the impact of the business cycle on the fiscal position and to provide a structural indication of the balance that lacks the temporary effects. Therefore, the structural fiscal balances ask the question: "what part of the changes in the fiscal stance is due to changes in the environment and what part to changes in policy" (Don Reis *et al.*, 2007, p.5).

The IMF, OECD, European Commission and other institutions, have developed a number of different definitions, ranging from the basic cyclically-adjusted balance concept to an augmented structural balance that includes corrections for one-offs, asset prices, commodity prices and output composition effects (IMF, 2012). Even though most of the time the terms structural balance and cyclically adjusted balance are treated as equal, we want to point out that they have slightly different meanings. The cyclically adjusted balance captures the change in fiscal policy not related to the effects of the economic cycle on the budget. The structural balance controls for additional one off factors and other non-discretionary changes in the budget unrelated to the cycle (Bornhorst *et al*., 2011, p.2).

3. IMF's METHODOLOGY

The International Monetary Fund, like most international organizations, including OECD, uses a two-step methodology in order to determine the structural deficit (Mourre *et al.*, 2013). This methodology consists in calculating the cyclical component of the budget first and then subtracting it from the actual budget balance.

In algebraic terms this method can be explained by the following formula:

$$\boldsymbol{Structural\, fiscal\, balance = (B/Y) - CC}$$

where, B/Y - nominal budget balance to GDP ratio
CC - cyclical component.

This approach followed by the IMF is similar to the one used by the OECD. However, it introduces a lagged component to capture the effect of income sources from the preceding year. The IMF does not explicitly include different components, as the OECD does. Another difference is that IMF links the cyclical component of expenditure to unemployment rather than to GDP. On the expenditure side, this approach is identical to the OECD, aside from the earmarked taxes (Bodmer & Geier, 2004).

Furthermore, the approaches used by the European Commission and IMF to estimate the cyclically adjusted budget balances are very similar. Both organizations base their calculation on the cyclical position of the economy, the output gap and on the relationship between the cycle and the different balance components.

Recently, the IMF released a user friendly template that helps calculate the structural balance both on a disaggregated basis – adjusting each revenue and expenditure item separately and adding them into an adjusted measure of the fiscal balance – and on an aggregated basis, adjusting directly aggregate revenues and expenditure.

Although the International Monetary Fund uses a comprehensive methodology in computing the structural deficit, there are well known measurement problems in calculating the structural balance. These limits refer to the estimation of the potential output and output gaps, the adjustment of fiscal revenues for the effect of business cycle using estimated revenue elasticity, and the question whether adjustments for asset price cycles, changes in the shares of various components of national income, or other factors are also needed (IMF, 2011, p. 68).

Therefore, calculating the structural fiscal balance is not an easy task (Bouthevillain & Quinet, 1999, p.325). Besides the advantages of targeting the structural component, there are also arguments against the use of this indicator (table 1).

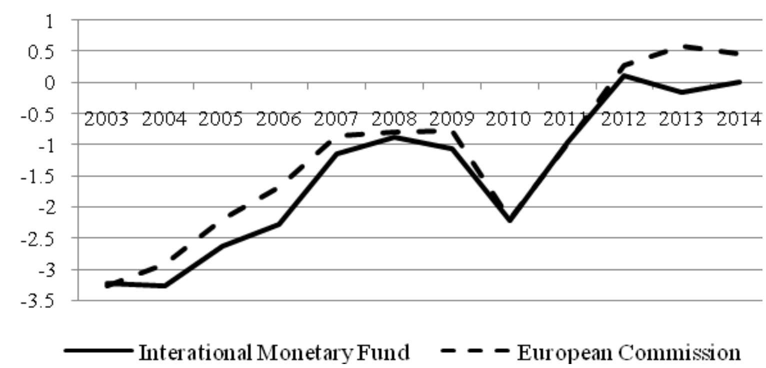
Table 1 Pros and cons for targeting the structural deficit

Pros	Cons
Relatively clear operational guidance Close link to debt sustainability Economic stabilization function (accounts for economic shocks) Allows to account for other one-off and temporary factors	Correction for cycle is complicated, especially for countries undergoing structural changes Need to pre-define one-off and temporary factors to avoid their discretionary use Complexity makes it more difficult to communicate and monitor

Source: Schaechter *et al.*, 2012

In order to demonstrate that the estimation of the structural deficit is subject to wide margins of uncertainty, we have gathered the data for structural deficit in Germany and Greece, calculated by the IMF and the European Commission.

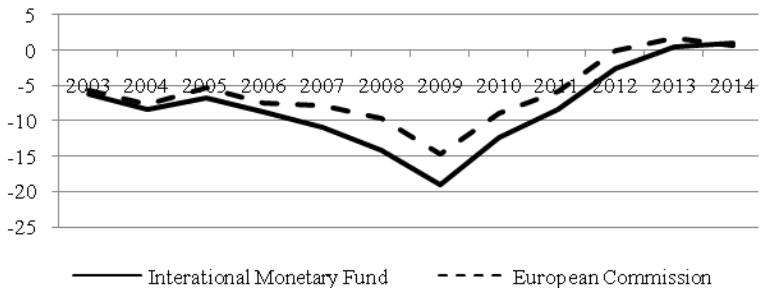
Figure 1 The structural deficit in Germania – IMF and European Commission estimations in 2003-2014



Source: International Monetary Fund (2013) &European Commission (2013)

Data illustrated in figure 1shows that the value for the structural deficit in Germany was higher when taking into consideration the estimations of the European Commission compared to the one of the IMF. The values were very close only in 2010-2012. The highest gap between the estimates of the two international organizations was registered in 2013 and equalled 0.7 percentage points. For Greece, the structural deficit estimated by the IMF was lower than the one estimated by the European Commission during 2003-2014 (figure 2).

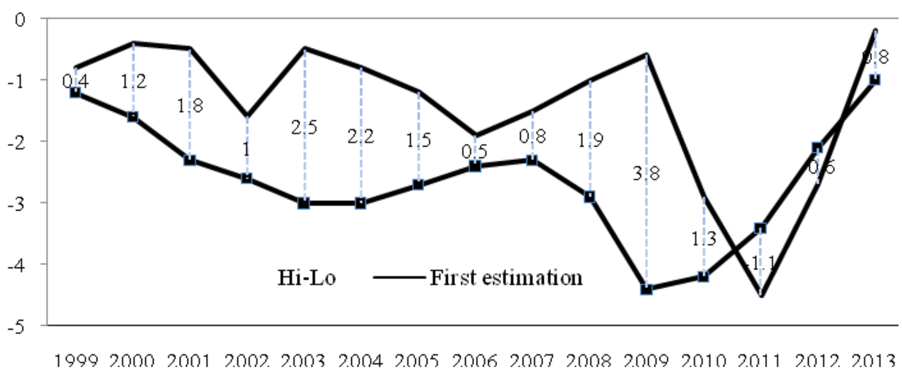
Figure 2 The structural deficit in Greece – IMF and European Commission estimations in 2003-2014



Source: International Monetary Fund (2013) &European Commission (2013)

Another problem related to estimating the structural deficit, besides the differences between the estimations of the IMF and European Commission, is that, sometimes, the same institution can re-examine the indicator and to provide new values for it. The International Monetary Fund published revisions of the level of the structural deficit (figure 3); between the first and the last estimation being significant differences. The highest level was registered in 2009 – a difference of 3.8 percentage points between the first and the last estimate of the structural deficit for the euro area.

Figure 3 Differences between the estimations of IMF regarding the structural deficit in euro area countries



Source: International Monetary Fund (2013)

The limit of 0.5% of GDP for the structural deficit, as stated in the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union, requires a higher precision that can be achieved in practice. In many cases, the retrospective approach of estimations for a certain moment determines changes with significant values or there are differences between the estimations of the International Monetary fund. Although in theory the analysis of the structural deficit seems to offer a better image of the fiscal discipline, the practical problems make difficult the use of this indicator.

CONCLUSIONS

Targeting the structural balances has taken a central position in the assessment of the fiscal policy owing to the benefits that it brings. Therefore, in this paper we have focused on the concept of structural deficit and on the methodology used by the International Monetary Fund in order to estimate it. The results show that there are limitations associated with computing the structural component that give rise to substantial gaps between the results of the IMF and other international institutions and even between the results of the IMF at different moments in time.

Although using the structural deficit at as target has both pros and cons, we consider that the arguments in favour are consistent enough in order to try to overcome the difficulties. Until the problems generated by the calculation of this indicator will be diminished, we recommend caution in interpreting the results.

One limit of this study is represented by the fact that it uses data estimated by the IMF, instead of using own data estimated with the template provided. Thus, an analysis of the structural deficit for countries in Eastern Europe based on the IMF's methodology presented in the excel template can be distinguished as a future research direction.

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