AUTOMATIC FISCAL STABILIZERS VS. DISCRETIONARY FISCAL POLICY: CHALLENGES AND POLICY OPTIONS

Mihaela Göndör

Abstract

This paper examine the role of Automatic Fiscal Stabilizers for stabilizing the cyclical fluctuations of macroeconomic output as an alternative to discretionary fiscal policy. Based on the literature in the field, this paper points out the disadvantages of fiscal discretionary policy and argue the need of using Automatic Fiscal Stabilizers in order to provide a faster decision making process, shielded from political interference, and reduced uncertainty for households and business environment. The paper presents some features of AFS operating mechanism and also identifies and systematizes the factors which provide its importance and national individuality. The paper argue the need for continued precaution in the use of discretionary policy, deep concern for implementation of Automatic Fiscal Stabilizers, the objective of making automatic stabilizers more effective and the integration of better measures of fiscal balance into the discretionary policy process.

The objectives of the study are the identification of the general features of the concept of automatic fiscal stabilizers and the logical assessment of them from economic perspectives. The result of this study is the developing of the definition of automatic fiscal stabilizer. The methodology used in this study has an abstract character, based on evaluations of completeness and consistency of the concepts, notions, classifications and interpretations.

Key words: automatic fiscal stabilizers, discretionary fiscal policy, output smoothing

JEL Code: G18, H30, E62

Introduction

It is well known that the effectiveness of using discretionary fiscal policy for balancing the output gap depends on policy makers' ability to correctly time policy changes and on the impact that fiscal policy changes have on the economy. The contemporary financial and economic crisis demonstrated that the mistakes in fiscal policy can have severe economic and

social consequences with high recovering costs. In Romania, for example, in crisis time, unstable and unpredictable fiscal policies have worsened the economic and social system thus reducing the government credibility. According to some researchers, sloppy tax legislation and the arbitrariness of rulings on behalf of the tax administration can reduce drasticly the state's credibility, becaming the main reason of fraude, tax avoidance and tax evasion (Owsiak, 2007). Thus becomes increasingly clear that the fiscal policy do needs rules for controlling possible excesses in the management of public expenditure and tax rates, because of the dangers of populism and fiscal irresponsibility that may involves a discretionary fiscal measure. The need of deep reforms concerning the political institutions and the quality of the fiscal policy have revived the debate in the academic literature on the subject of nondiscretionary fiscal policy by the mean of automatic fiscal stabilizers. Although the automatic fiscal stabilizers (AFS) are a Keynesian idea (Blanchard, 2000, p. 69), in the last ten years before actual economic crisis, it has been not much discussed by researchers, although the Stability and Growing Pact (SGP) allows the governments to use both discretionary and nondiscretionary fiscal policies. A large part of the existing literature seems to admit the potential of the automatic stabilizer of being an anti crisis solution. On one side of the debate, some of the researchers have argued that discretionary fiscal policy is not an effective stabilization tool because of its long decision and implementation lags (Cogan et al., 2010). Others have argued the effectiveness of using automatic stabilisers only complemented by discretionary action by pointing out the presence of financially constrained households and accommodative monetary policy in crisis times (Christiano, Eichenbaum and Rebelo, 2011; Davig and Leeper, 2011; Coenen et al., 2012). Both sides of this debate seems to support the view that automatic fiscal stabilizers do not require deliberate intervention by government and hence they are not subject to implementation lags, being the main AFS advantage. The most important questions which rise from such a debate is how much output stabilization the AFS can deliver.

In terms of automatic fiscal stabilizers with respect on output smoothing, the literature simply reveals its lack of clarity. There are very divergent views about which elements or components of the budget actually provide the main automatic stabilization over the cycle, there is still no consensus about the AFS actual nature and their effectiveness.

In this context, the objectives of the study are the identification of the general features of the concept of automatic fiscal stabilizers and the logical assessment of them from economic perspectives. In this purpose the paper intends to answer to the following questions: How to measure the AFS size? Which are the factors with influence on the AFS mechanism? Which

is the component of the public budget through the AFS has its largest effect on macroeconomic output: the expenditures or the revenues?

The result of this study is the developing of the definition of automatic fiscal stabilizer.

Considering important to clarify some conceptual issues general valid related on automatic fiscal stabilizers, this study is based on logical analysis and not focused on empirical, contextualized one. As a result, the methodology used in this study has an abstract character, based on evaluations of consistency, completeness and consistency of concepts, notions, classifications and interpretations.

This paper is structured as follows: The introduction presents the research status in the study field, the study objectives, the methodology and the paper structure. The chapter 1 outlines a simple theoretical framework for thinking about Automatic Fiscal Stabilizers concept as it is reflected by the scientific literature. The chapter 2 studies the Automatic Fiscal Stabilizers operating mechanism, and the chapter 3 concludes.

1. Automatic Fiscal Stabilizers in the Scientific Literature

According to the literature, automatic fiscal stabilizers are an integral part of the fiscal policy arsenal of a country, both on the revenue and expenditure side. On the revenue side, the literature reveals that taxes are the most proeminent automatic stabilizer and on the expenditure side, the most discussed automatic stabilizers are unemployment benefits (Bornhorst et al., 2011; Dinga, 2009b; Martner, 2000). In 2000 Martner Ricardo argued that the automatic fiscal stabilizers help to stimulate the economy in periods of recession and moderate it in booms thus exercising a regulatory function. According to the Auerbach Alan studies in 2002, the most obvious problem with looking at fluctuations in tax revenues, is sensitive to the economic cycle and changes occur without any active policy decisions, the author concluding that these changes may serve as automatic stabilizers. The conclusion of such a study is that the automatic fiscal stabilizers could be an alternative to discretionary fiscal policy. In the literature, the automatic stabilizers could be an alternative to discretionary fiscal policy. In the literature, the automatic stabilizers could be an alternative to discretionary fiscal policy. In the literature, the automatic stabilizers could be an alternative to discretionary fiscal policy. In the literature, the automatic stabilizers could be an alternative to discretionary fiscal policy. In the literature, the automatic stabilization is also associated with the size of the government (Bornhorst et al., 2011; Follette & Byron, 2010; Cogan et al., 2010; Cristiano et al., 2011).

In 2010, Follette and Byron, provided quantitative estimates of the effects of the automatic stabilizers on the government budget and on the economy in The United States, for 2008-2009. In 2009, Baunsgaard and Symansky concluded that countries should avoid introducing procyclicality as a result of fiscal rules, as these would offset the effect of existing automatic

stabilizers. Also in 2009, some studies, provided guidance on how to decompose overall fiscal balances into cyclical and cyclically adjusted components, and how to interpret automatic fiscal stabilizers, proposing methodology for decomposing changes in overall fiscal balances into discretionary and "automatic" effects (Fedelino et al.).

Cyclically adjusted and structural balances are used extensively in an effort to explain how sharply deteriorating fiscal balances relate to changes in the macroeconomic environment (Bornhorst et al., 2011).

Regarding the Romanian literature in the research field, it is notable the contribution of Dinga Emil, 2009 in identifying the logical properties of a discretionary public policy/non-discretionary public policy, in clarifying the criteria for determining and identification of it in different assumptions of the variation rate action and of the base action. (Dinga, 2009a, 2009b).

2. Clarifying the Criteria for Determining the AFS Size

2.1. How to Measure the AFS Size?

The recent literature defines the size of the automatic stabilizers as the change in the budget resulting from a change in economic activity (Veld et al., 2012, p.4). Based on this definition and on the fact that such a changing in the budget can be measured by indicators as budgetary sensitivity and budgetary (semi)elasticity we can inferr that the AFS size can be measured by these two indicators.

So, for measuring the AFS size, we can use the budgetary sensitivity and budgetary (semi)elasticity.

The budgetary sensitivity, which for instance is used by the European Commission in the context of the EU fiscal surveillance framework, measures the change in the level of revenues and expenditures resulting from a marginal change in Gross Domestic Product (GDP):

$$\varepsilon_{R} = \theta_{R} \frac{R}{Y} = \left[\left(\frac{dR}{dY} \frac{Y}{R} \right) \frac{R}{Y} \right] = \frac{dR}{dY}$$
(1)
$$\varepsilon_{G} = \theta_{G} \frac{G}{Y} = \left[\left(\frac{dG}{dY} \frac{Y}{G} \right) \frac{G}{Y} \right] = \frac{dG}{dY}$$

Where:

- R government revenues,
- G government expenditures

Y - GDP

 θ_R and θ_G - GDP elasticity of government revenues and expenditure respectively.

The budgetary semi-elasticity, which is used by the IMF and the OECD, measures the reaction of the ratios of expenditure and revenues to GDP to a relative change in GDP.

$$\eta_{R} = \frac{d\left(\frac{R}{Y}\right)}{\frac{dY}{Y}} (\theta_{R} - 1) \frac{R}{Y}$$

$$\eta_{G} = \frac{d\left(\frac{G}{Y}\right)}{\frac{dY}{Y}} (\theta_{G} - 1) \frac{G}{Y}$$
(2)

As it can be observed in formula (1) and formula (2), the AFS size is influenced by a number of factors, notably the degree of progressivity of the tax system, the importance of unemployment benefits and the size of government as measured by the government revenue and expenditure ratio R/Y and G/Y. An increase in the Automatic Fiscal Stabilizers can be achieved through tax policy changes or by an appropriate design of fiscal rules which also involve discretionary actions.

The importance of Automatic Fiscal Stabilizers mechanisms depends on many factors. Based on the literature in the field, I have identified and systematized the fallowing main factors:

- the size of government, which means the weight of the public sector in the economy,
- the structure of public revenues,
- the structure of public expenditures,
- the nature of the tax system i.e. the progressiveness of the tax system,
- fiscal rules,
- the transfer system,
- the unemployment benefit schemes,
- the degree of openness of the economy, etc.

All these factors imply structural characteristics which widely vary from country to country, and also over time. The size of Automatic Fiscal Stabilizers reflects not only the elasticity on revenues and expenditures but also the sensitivity of tax bases to changes in macroeconomic

output. It results that reducing the progressiveness of the tax system means to decrease the effectiveness of Automatic Fiscal Stabilizers in smoothing the output gap. That's why the degree of smoothing of the economic cycle through the automatic fiscal stabilizers differs widely from country to country.

2.2. Conceptual Difference regarding the Contribution of Government Expenditure and Revenues

Analyzing the two formulas in the respect of measuring the AFS size, a conceptual difference regarding the relative contribution of government expenditure and revenues can be observed. The budgetary sensitivity indicator allocates the predominent contribution to automatic stabilization to the revenue side of the budget, with expenditure having a small contribution. The semi-elasticities, by contrast, allocates the predominent contribution to automatic stabilization to the expenditure side of the budget (expenditure ratio), with almost no contribution from the revenue side of the budget.

Which can be the cause of such a conceptual difference? The cause can be found in the definition of the wo indicators i.e. the budgetary sensitivity looks at changes in levels and the semi-elasticities at changes in ratios to GDP. By calculating the changes in levels, budgetary sensitivities implicitly assume that without build-in automatic stabilizers expenditure and revenues would remain constant in levels. By calculating the changes in ratios to GDP, semi-elasticities presume a neutral budget whereby expenditure and revenues remain proportional with respect the output that is expected to be stabilised e.g. GDP.

As the cyclical component of expenditure is smaller than that of revenue and the fluctuations in the cyclical component of the overall budget balance are largely explained by cyclical movements in revenue given the higher elasticity on revenues compared to expenditures (see Martner, 2000), it means that revenues respond relatively more to variations in the macroeconomic output gap compared to expenditures. Among expenditures, only the transfers which are oriented toward income support like unemployment insurance benefits respond automatically to changes in economic activity. Result that it is through fiscal policy that Automatic Fiscal Stabilizers have their largest effect on macroeconomic output. A tax system with rates rising with respect to income might, i.e. a progressive tax system, serves to stabilize output. Falling output, reducing marginal tax rates, could encourage business resulting greater labor supply which will raise public revenues in order to balance public budget. Raising output and marginal tax rates would have the opposite effect. Despite recent contributions to the literature, the strength of these effects is still not clear. The relative importance of automatic stabilizers on the demand and supply sides remains to be determined.

The conclusion of such an analyse is that different benchmark budgets will imply different sources of fiscal automatic stabilization.

Conclusion

The substantial differences in the approach of automatic fiscal stabilizers can be explained by the use of different definitions of automatic stabilizers and connected to that, of benchmark budgets. In order to define the AFS concept and to design its mechanism, it is important to define a proper benchmark budget. The literature shows that, until now, no general benchmark has been established.

In future paper, we intend to decompose the fiscal policy into discretionary and nondiscretionary components to understand how the budget moves with output cycles and to design a benchmark budget.

Acknowledgment

This work was supported by the project "Post-Doctoral Studies in Economics: training program for elite researchers - SPODE" co-funded from the European Social Fund through the Development of Human Resources Operational Programme 2007-2013, contract no. POSDRU/89/1.5/S/61755.

References

- Auerbach, Alan. Is There a Role for Discretionary Fiscal Policy?, Conference sponsored by the Federal Reserve Bank of Kansas City on Rethinking Stabilization Policy, held in Jackson Hole, WY, August 29-31, 2002. <u>http://elsa.berkeley.edu/~auerbach/role.pdf</u>
- Baunsgaard, Thomas and Symansky, Steven. "Automatic Fiscal Stabilizers: How Can They Be Enhanced Without Increasing the Size of Government?", *IMF- note*, SPN/09/23, 2009. <u>http://www.imf.org/external/pubs/ft/spn/2009/spn0923.pdf</u>
- Blanchard, Olivier. "Commentary" FRBNY Economic Policy Review New York, 2000. pp. 60-73
- 4. Bornhorst, Fabian, Dobrescu, Gabriela, Fedelino, Annalisa, Jan Gottschalk, and Taisuke Nakata. "When and How to Adjust Beyond the Business Cycle? A Guide to

Structural Fiscal Balances", *Fiscal Affairs Department*, IMF, 2011. available at http://www.imf.org/external/pubs/ft/tnm/2011/tnm1102.pdf

- Follette, Glenn and Byron, Lutz. Fiscal Policy in the United States: Automatic Stabilizers, Discretionary Fiscal Policy Actions and the Economy, 2010. <u>http://www.bancaditalia.it/studiricerche/convegni/atti/FiscalPolicy/Session1/Follette</u> Lutz.pdf
- Fedelino, Annalisa, Ivanova, Anna and Horton, Mark. "Cyclically Adjusted Balances and Automatic Stabilizers: Some Computation and Interpretation Issues", *IMF Technical Notes and Manuals* (Washington: International Monetary Fund), 2009. http://www.imf.org/external/pubs/ft/tnm/2009/tnm0905.pdf
- Cogan, J.F., T. Cwik, J.B. Taylor, and V. Wieland. "New Keynesian versus Old Keynesian Government Spending Multipliers." *Journal of Economic Dynamics and Control*, Vol. 34, No. 3:281–95. 2010.
- 8. Christiano, L., M. Eichenbaum, and S.Rebelo. "When Is the Government Spending Multiplier Large?" *Journal of Political Economy*, Vol. 119, No. 1: 78–121. 2011.
- Coenen, G., C. Erceg, C. Freedman, D. Furceri, M. Kumhof, R. Lalonde, D. Laxton, J. Linde, A. Mourougane, D. Muir, S. Mursula, C. de Resende, J. Roberts, W. Roeger, S. Snudden. M. Trabandt, J. in 't Veld. "Effects of Fiscal Stimulus in Structural Models". *American Economic Journal: Macroeconomics*, Vol. 4, No. 1: 22-68, 2012.
- 10. Dinga, Emil, *Studii de Economie; Contribuții de analiză logică, epistemologică și metodologică*, Ed. Economică, București, 2009a.
- 11. Dinga Emil, *Despre stabilizatorii fiscali automați*, 2009b. available at http://www.edinga.ro/site/vezistudiu.php?id=6
- Davig, T., and E.M.Leeper. "Monetary-Fiscal Policy Interactions and Fiscal Stimulus," *European Economic Review*, Vol. 55, No. 2: 211–227. (2011)
- Frey, B.S., Torgler, B.,"Tax morale and conditional cooperation". *Journal of Comparative Economics* 35 (1), 136–159. 2007.
- Martner, Ricardo. "Automatic fiscal stabilizers", *Cepal Review 70 Eclac Publicaciones*, 2000, available at http://www.eclac.org/publicaciones/xml/2/19912/lcg2095i_Martner.pdf
- Owsiak, S., *Taxes in post-communist countries old and new challenges*. In: Hayoz, N., Hug, S. (Eds.), Tax Evasion, Trust, and State Capacities. How Good Is Tax Morale in Central and Eastern Europe? Peter Lang, Bern, pp. 187–225, 2007.

16. Jan in't Veld, Martin Larch, Marieke Vandeweyer. Automatic Fiscal Stabilisers: What they are and what they do. Economic Papers 452 |, European Commission Directorate-General for Economic and Financial Aff airs Publications, B-1049 Brussels Belgium, 2012

Contact

Mihaela Göndör Petru Maior University of Tirgu Mures Nicolae Iorga Street no.1, Tirgu Mures, Romania mihaelagondor@yahoo.com