institute for structural research

A comparison of Swiss, German and Polish fiscal rules using Monte Carlo simulations

Adam Pigoń, Michał Ramsza

The sovereign debt crisis, resulting from the 2008 collapse, has highlighted the need to keep public debt stable. Recent economic studies indicate[1] that excessive public finance deficits are a result of a systemic political bias to build them. One of the ways to prevent this phenomenon is to introduce fiscal rules, understood as impersonal, formal tools determining the budget balance using mathematical formulas.

Our paper assesses the impact of the current fiscal rules in Poland, Germany and Switzerland on fiscal policy. The existing consensus[2] indicates that the desired features of fiscal rules are simplicity and transparency, together with the fact that the fiscal policy they imply should be anticyclical and should lead to the stabilisation of debt in the long run. The rules are simulated with the use of a VAR model, which imitates the relationship between public expenditure, public revenue and GDP on the basis of US empirical data from 1960-2015.

The most important conclusions of the analysis:

- All fiscal rules stabilize budget deficits in relation to GDP. The Swiss rule is the most conservative and most reminiscent of the balanced budget rule. However, neither the Swiss nor the German mechanisms stabilize the public debt in the strict sense, since in the (very) long term it may grow if the GDP growth is decreasing. The Polish rule stabilizes the debt at the level of 40-50% of GDP, even when there is a slower economic growth rate. Among these three rules, the Polish one is associated with the greatest uncertainty, understood by the greatest variance of deficits and debt.

- Stabilising deficits means an increase in the instability of public expenditures or revenues in the economy with the Swiss or German rule. The Polish rule, by definition, stabilizes expenditures, which means greater volatility of deficits.

- All three rules lead to a countercyclical fiscal policy. Its degree is strongest for the Swiss rule.

- The analyzed rules contain some elements implying a necessity of making discretionary decisions, calculating unobservable trends or making forecasts. This still means that politicians can affect the conduct of fiscal policy.

Full version of the paper in English:
Pigoń A. & Ramsza M. (2019), A comparison of Swiss, German and Polish fiscal rules using Monte Carlo simulations, http://ibs.org.pl//app/uploads/2019/07/IBS_Working_Paper_10_2019.pdf

[1] A.Alesina i A Passalacqua (2016). “The political economy of government debt”, Handbook of Macroeconomics 2B, rozdział 34. Elsevier.

[2] C.Wyplosz (2013). “Fiscal rules: theoretical issues and historical experiences.”, Fiscal Policy After the Financial Crisis, rozdział 12. University of Chicago Press.