272

Brasilia, February 2023

EXECUTIVE SUMMARY

ANTICIPATED AND UNANTICIPATED FISCAL SHOCKS IN AN ESTIMATED DSGE MODEL FOR THE BRAZILIAN ECONOMY

Marco A. F. H. Cavalcanti
Researcher at the Department of Macroeconomic Studies and Policies of the Institute for Applied Economic Research (Dimac/Ipea). E-mail: <marco.cavalcanti@ipea.gov.br>.

Luciano Vereda Oliveira
Department of Economics of the Universidade Federal Fluminense (UFF). E-mail: <lvereda@gmail.com>.

Vinicius dos Santos Cerqueira
Researcher at Dimac/Ipea. E-mail: <vinicius.cerqueira@ipea.gov.br>.

Thais C. O. da Fonseca
Department of Statistics of the Federal University of Rio de Janeiro (UFRJ). E-mail: <thais@dme.ufrj.br>.

DOI: http://dx.doi.org/10.38116/dp272

We studied the effects of unanticipated and anticipated fiscal shocks in the context of a DSGE model for Brazil and found the following statements.

1) Fiscal policy shocks have a limited role in explaining business cycles.

2) Anticipated shocks account for a relatively small share of the total impact of fiscal policy shocks.

3) The estimated degree of anticipation of fiscal shocks is relatively short, corresponding to one or two quarters, depending on the fiscal instrument.

Our conclusion on the limited role of fiscal shocks as business cycles drivers is consistent with the previous literature, but the other two results differ from those found in previous studies, according to which anticipated shocks have a large weight in the total impact of fiscal policy shocks and the degree of anticipation of fiscal shocks could reach up to two years. These differences relative to previous studies may be due to two main reasons.

First, we assessed the degree of fiscal shock anticipation that provided the best fit to our data – for all fiscal shocks taken together, as well as for each type of instrument individually –, through an empirical selection scheme based on Bayes Factors, whereas the previous literature relied mainly upon degrees of anticipation that were fixed in advance, rather than being estimated. It is possible that the adoption of empirically-based criteria might have led to shorter degrees of anticipation in other studies as well.

Second, fiscal policy may work differently in Brazil than in other countries. More specifically, the legal and political process by which the public budget is negotiated and approved in Brazil may lead to relatively short time intervals between the announcement of "fiscal news" – changes to the fiscal guidelines initially proposed by the Executive branch – and their implementation, thus leading to relatively short degrees of anticipation of fiscal shocks.

We also investigated the effects of shock anticipation for a much wider array of fiscal instruments than previously considered in the literature. Indeed, whereas previous studies only allowed for the anticipation of shocks to government spending and/or capital and labor taxation, we also analyzed important budget components such as public investment, employment, and transfers. According to our results, shocks to government consumption and lump-sum taxation are anticipated one quarter in advance, while all other shocks are anticipated two quarters in advance.