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Fiscal reaction under endogenous structural changes in Brazil

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Abstract

Regarding the importance of fiscal policy in smoothing the impact of shocks such as the international financial and economic crises, the paper analyzes the sustainability of the Brazilian fiscal policy by taking into consideration the possibility of multiple endogenous structural breaks on the coefficients of government reaction function. From monthly data in the period 1991–2008, tests on the reliable estimates dictate the occurrence of structural change in May 1994, and another in February 2003. There has been a situation of fiscal solvency in Brazil, but only from May 1994 the hitherto innocuous actions of government to formulate policies on public debt turn out to be significant, as it rose twofold after February 2003. This reinforces the existence of a more flexible alternative to implement strategic policy in Brazil, if an eventual alternative for increasing public spending is a way of hindering the effects of international financial crises without compromising the fiscal targets.

JEL classification: H6; H62; H63

Keywords: Fiscal reaction function; Endogenous structural changes; Fiscal solvency

Resumo

Considerando a importância da política fiscal na suavização dos impactos de choques como as crises financeiras e econômicas internacionais, o artigo analisa a sustentabilidade da política fiscal brasileira a partir da estimação de uma função de reação que permite múltiplas quebras estruturais endógenas em seus coeficientes. Os resultados evidenciam uma mudança estrutural na política fiscal brasileira a partir de maio de 1994 e outra em fevereiro de 2003. Constata-se uma situação de solvência fiscal no Brasil, mas apenas a partir de maio de 1994 a até então inócua capacidade de resposta do setor público aos aumentos da dívida pública passa a ser significativa e mais que duplica após fevereiro de 2003. Este fato reforça a existência de uma margem de manobra mais confortável aos formuladores de política no Brasil, se uma eventual opção pelo aumento do gasto público for uma alternativa obstruir os efeitos da crise financeira internacional, sem comprometer as metas fiscais.

Palavras-chave: Função de Reação Fiscal; Quebras Estruturais Endógenas; Solvência Fiscal

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1. Introduction

The fiscal surpluses observed in most industrialized countries in the early 90s, and the subsequent occurrence of economic recession with strong impacts on public budgets, brought up back the debate about the sustainability of fiscal policy. Particularly in Brazil in the early 2000s, where the so-called stabilization real plan was already consolidated, the focus of policymakers was driven to control the internal public debt, since the credibility of the national economy would viable the reduction of external debt.

As a result of the financial and economic shocks occurred worldwide at the end of past decade, austerity in the fiscal policy became a necessary condition to maintain the economic growth in many countries, as well as the maintenance of the Maastricht Treaty and continuity of the Euro Zone. Indeed, the international financial crisis of 2008 transferred to the public sector the burden to respond the scarcity of resources arising from the retreat of investors from the financial sector.

Since the expectation of fiscal deterioration by the investors is a decisive factor for economic crises, given that they anticipate the results of long-term economic measures implemented in the current period, insolvency comes to mean economic vulnerability. When the fiscal imbalance occurs and the market expectation follows an unsustainable trajectory for public debt in the medium and long term, funding government through the issuance of bonds becomes unviable, and monetary expansion and/or taxing shall be the means for settling its debts (Sargent and Wallace, 1981). So, it is also to be assessed in this paper the long-term implications of fiscal policies in a scenario of possible structural changes in the economy and fiscal austerity measures to combat the uncontrolled growth of public debt.

From this perspective, and taken into account a methodology based on the Government's response to the accumulation of debt, we sought to extend the studies of Luporini (2000, 2002, 2012), Issler and Lima (2000), Lima and Simonassi (2005), by evaluating the Brazil's fiscal performance from two test criteria: (a) debt sustainability of the public sector; (b) existence of policies that strive for fiscal austerity in periods of growing debt.

The contribution in relation to previous studies stands on two pillars: (i) the assessments that the traditional unit root tests often neglect the remedial measures adopted by several governments; (ii) the misconception eventually incurred by researchers who test sustainability of public debt via cointegration analysis between expenditures and revenues. Regarding the first aspect, it is worth mentioning the fact that when these tests are performed to control for structural breaks, the results of non-stationary change considerably, as pointed out by Uctum et al. (2006). Therefore, the analysis of public debt sustainability through fiscal response function of the government expanded to allow multiple structural breaks in their coefficients is supposed to be a more robust and valid technique to obtain the results for addressing economic policies. This occurs both by providing evidence of active policies of fiscal austerity and providing greater predictive power in the changes and evolution of fiscal policy.

In order to accomplish the proposed analysis, monthly data span the period 1991 (before the 1994 stabilization plan) to 2008 (before the political change of Government in 2010). This period choice is appropriate since it covers domestic and external shocks (notably international currency exchange and financial crises with domestic reflex), which are favorable scenarios to test the vulnerability of public accounts.

It should be noted that although there is availability of data for the past three years, the uncertainties of concrete policy actions during the current government would make their use inappropriate in the analysis compared to the time series chosen. These uncertainties arise from inconsistent planned measures in the current Government by ruling, for instance, the implementation of a fiscal adjustment without investment cut. Paradoxically, as evidenced by Giambiagi (2011) with data from the National Treasury Office (STN), the investment outlay increased 5% (in real terms relative to GDP) in the first half of 2011. Thus, we believe that the choice to limit the analysis to 2008, where two governments with the same ideology prevail in continuity provide more solid results, thus avoiding impurities of rhetorical policies for planning public accounts.

The core results corroborate those of some recent studies, as Luporini (2012), and signal for a "shield" of the Brazilian economy in relation to the possible effects of an eventual increase in public spending to stimulate economic growth and/or to minimize the effects of the international financial crisis to explain an increasing capacity to generate primary surplus by the government. Besides, it is found evidence of two structural changes along the period: one in mid-1994 and the second in early 2003, with a duplicate of the initially innocuous fiscal response by the government to the increasing public debt.