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FISCAL POLICY SPACE FOR DEVELOPING ECONOMIES: A THREE FINANCIAL BALANCE APPROACH IN A STOCK-FLOW CONSISTENT MODEL

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Introduction

The concept of fiscal policy space, which refers to the capacity of governments to increase spending and issue debt, is a subject that is open to interpretation in academic literature. According to Blanchard (2004, 2019), fiscal policy space can increase (or decrease) if inflation and interest rates are very low (or very high). According to Ocampo (2016) and Botta et al. (2023), there is a correlation between fiscal policy space and the balance of payments. It is asserted that an elevated (or reduced) sophisticated production structure, and an increased (or decreased) level of capital controls, can result in an augmentation (or diminution) of fiscal policy space.

The first approach utilizes a DSGE (dynamic stochastic general equilibrium) model to assert that the combination of low inflation and low

interest rates facilitates governments' stabilization of future budgets with reduced tax increases, thereby mitigating the associated penalties for society. The second approach utilizes a balance-of-payments constraint model to assert that an increase in the growth rate equilibrium would enhance the likelihood of augmented government spending without exerting pressure on current accounts.

We hereby propose a third approach to understanding fiscal policy space in developing economies. This approach utilizes Godley's three financial balance analyses in a stock-flow consistent (SFC) framework within a continuous-time model. The seminal work of Godley & Lavoie (2007), which focused on the developed economies, arrived at a conclusion that aligns with that of Blanchard (2019). Specifically, the former assertive that real interest rates serve as the primary constraints on the fiscal policy space, thereby underscoring the significance of financial considerations in economic policy formulation. However, Godley & Lavoie (2007) are a two financial balance analyses in a SFC framework within a discrete-time model. The primary objective of this study is to extend the analysis proposed by Godley & Lavoie (2007) to cover a three-financial-balance analysis. This expansion involves the incorporation of the current account and external debt constraints within a continuous-time model.

The Model

The model is built on the following accounting identities:

$$Y=A+G+X-M \quad (1)$$

$$A+G+X-M=Yp+T_y \quad (2)$$

$$S_p=Yp-T_y \quad (3)$$

$$S_g=T_y-G \quad (4)$$

$$S_x=M-X \quad (5)$$

?SAV?_p=S_p+iB_p-iD_x+i^* R_p·Ex-T_bp=(B_p) ?+(R_p) ?-(D_x) ? (6)

?SAV?_g=S_g-iB+i^* R+T_b=R ?-B ? (7)

?SAV?_x=S_x+iB_x-i^* R·Ex+iD_x-i^* R_p·Ex-T_bx=(B_x) ?+(D_x) ?-R ?-(R_p) ? (8)

Where, Y denotes the total income, A denotes the total private spending, G denotes the total public spending, X denotes the total exports, M denotes the total imports, Yp denotes the private income (aggregation of profits and wages), \operatorname{T}_y denotes the taxes on goods market, S_p denotes the private savings, S_g denotes the public savings, S_x denotes the external savings, {SAV}_p denotes the private financial results, {SAV}_g denotes the pubic financial results, {SAV}_x denotes the external financial results, i denotes the domestic interest rate, i^\ast denotes the international interest rate, B_p denotes the public debt held by private sector, B_x denotes the public debt held by external sector, B denotes the total public debt, D_x denotes the private debt held by external sector, R_p denotes the external assets held by private sector, R denotes the external assets held by public sector, T_{bp} denotes the taxes on financial flows received by private sector, T_{bx} denotes the taxes on financial flows received by external sector, T_b denotes the total taxes on financial flows received, and Ex denotes the exchange rate.

The model covers thirty equations and/or sub-equations, which are based on the following main assumptions: exogenous return on physical capital, perfect balance between domestic private debt held by the private sector and physical capital stock, wealth effect on private spending, different conditions on private acquisitions of public debt and external assets or issuing of external debt depending on private financial result, and the combination of total private net worth, total stock of capital, and total public debt. The model also incorporates different taxations on income and financial flows, fiscal rule to build structural primary surplus or structural primary deficit, growth rate of exports and imports defined by Thirlwall (1979) complete equation, domestic prices defined by import share, domestic interest rate defined by covered interest rate parity, and country-risk defined by fiscal and current accounting fundamentals.

Preliminary Results

The main balance equation, stability conditions, and initial simulation results collectively suggest that: The combination of price elasticities of imports and exports, as well as the income elasticity of imports, is the primary source of instability. Furthermore, an excessively stringent fiscal rule that compels high public savings can result in unsustainable external private indebtedness. Similarly, an excessively lax fiscal rule that forces negative public savings can lead to fiscal and income instability. Finally, the imposition of taxes on financial flows, in combination with public savings, can contribute to the stabilization of the model.

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Palavras-chave: fiscal policy; developing economies; financial balances.