Fiscal Policy and Default Risk in Emerging Economies*

Gabriel Cuadra† Horacio Sapriza‡

January 2005

Abstract

Emerging market economies typically experience procyclical public expenditures and private consumption, countercyclical default risk, interest rate spreads, current account and inflation tax rates as well as and higher volatility in consumption than in output. We develop a quantitative stochastic dynamic equilibrium model of a small open economy with endogenous fiscal policy and endogenous default risk and country interest rate spreads that rationalizes these empirical findings. In a quantitative analysis, the calibrated model can account for an important fraction of the magnitude of the comovement of these macroeconomic variables that is observed in data.

JEL classification: F34, F41.

Keywords: procyclical fiscal policy; sovereign default risk; endogenous borrowing constraints

*For useful comments we thank seminar participants at Rutgers University and Banco de México. All remaining errors are our own.

†Dirección General de Inv. Económica, Banco de México, México, email:gcuadra@banxico.org.mx.

‡Rutgers University, email:hsapriza@andromeda.rutgers.edu.

1. Introduction

In this paper we rationalize several stylized facts documented in the empirical literature of emerging market economies by developing a dynamic stochastic equilibrium model of a small open economy with endogenous fiscal policy, endogenous borrowing constraints and equilibrium default.

OECD countries and developing economies differ in the cyclical properties of their capital flows, macroeconomic policies and many macroeconomic variables. We provide a quantitative model that captures several distinct empirical regularities of emerging economies and thus also provides implications of practical importance from a policy perspective.

Developed economies experience acyclical public expenditures, lower volatility in consumption than in GDP, countercyclical current accounts, countercyclical inflation as well as countercyclical consumption taxes (inflation taxes). While developing economies also exhibit countercyclical current accounts, inflation and inflation taxes, their public expenditures are procyclical and their consumption is more volatile than GDP. In addition, these countries experience procyclical capital flows, countercyclical default risk and countercyclical interest rate spreads. Our model helps to close the gap between the empirical and theoretical literature in emerging markets.

The government in the model economy collects consumption taxes from households and borrows abroad to finance public expenditures. It may optimally default on the outstanding debt every period, so interest rate spreads reflect the sovereign default risk. In recessions the government faces higher interest rate spreads due to higher default risk and finds it optimal to rely more heavily on taxation to finance public expenditures.

However in expansions the marginal cost of international credit is lower so there is an increase in financing through borrowing, while taxes play a lesser role. Since the government cares about households, it is not optimal to tax heavily in recessions, so public expenditures are highly procyclical.

In a quantitative exercise, we calibrate the model to the mexican economy. Results show that the calibrated model mimics all the empirical regularities described above for emerging economies and captures an important fraction of the magnitude of the comovements observed in data.

The paper proceeds as follows: Section 2 provides the link to the literature; the economic environment and the theoretical model are presented in Section 3, the equilibrium is characterized in Section 4, the quantitative implications of the model are analyzed in Section 5 and the conclusions are presented in Section 6. The algorithm is described in the appendix.