

Essays on Optimal Macroeconomic Policy in Developing Countries

by
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Dissertation Abstract

The goal of this dissertation is to analyse optimal macroeconomic policies under some specific constraints faced by the policymakers in emerging and developing countries. The first chapter investigates how the presence of risk premium in international capital market leads to procyclical fiscal policies in emerging countries. The second chapter derives the optimal monetary policy in a small open economy when a fraction of the population does not have access to the asset market. The third chapter provides some case studies on the procyclical tendency of fiscal variables at a disaggregated level.

It is well documented that developing countries pay a higher risk premium on loans when the economic condition is bad and the premium decreases when the condition is good. In contrast, for developed countries, the interest rate on foreign loan is largely uncorrelated with the business cycle. In such a situation, a developing country government has three fiscal options during a recession when the revenue is low: reduce spending, increase taxes or borrow more to meet spending targets. Cutting spending and increasing taxes during recessions create distortions since they further shrink the economic activity. However, borrowing by the government increases the already high risk premium faced by the country since it increases the debt-GDP ratio. The first chapter of my thesis shows, with the help of a standard dynamic stochastic small open economy general equilibrium model, that in the presence of such risk premium on loans, optimal Ramsey policy involves a procyclical bias in spending and tax policy. In addition, both the public and the private debt accumulation also tend to be procyclical. These conclusions match the observed pattern in the data for the developing countries. Several researchers have shown empirically that the fiscal policy, in many developing countries, tends to be procyclical in the sense that it actually accentuates the economic fluctuations. This means government expenditures are typically high during booms and low during recessions and tax rates are low during booms and high during recessions. In addition, these countries typically borrow more during boom and less during recessions. In contrast, in developed countries, where there is no cyclical risk premium on loans, the fiscal policy is acyclical and the borrowing from the international capital market is uncorrelated with the economic cycles.

The second chapter deals with the optimal monetary policy in a small open economy characterized by a segmented asset market where a part of the population does not earn enough to participate in the asset market. Limited asset market participation is a common feature in developing countries where the vast majority of the population do not even hold a bank account. Typical sticky-price models with full participation in the asset markets give a standard answer of “price stabilization” as the prime goal of the monetary policy. This is to minimize distortion from costly price adjustment. With limited asset market participation, optimal policy involves higher inflation volatility and lower output volatility as compared to what is obtained in an economy with full participation. This also has important implication for the cyclical movement in exchange rate.

The third chapter involves a case study to investigate further the pro-cyclical pattern of tax rates in some developing countries. Procyclicality of the aggregate government expenditure is well-established. However, cyclical pattern of the tax rate and different components of the government expenditure are not very well documented. This chapter provides some case studies to further investigate the cyclical pattern of different components of the government expenditure and the tax rates in selected developing countries.