Econ 635: Problem Set 3

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November 30, 2009
Due date: December 14, 2009

Answer all questions below.

1. (20 points: fixed exchange rate policy) Consider a small and open economy. Suppose that final consumption is a Cobb-Douglas composite of imports and exportables, \( C = C^\gamma_m C^{(1-\gamma)}_x \), \( 0 < \gamma < 1 \), and

\[ u(C_t) = \frac{\sigma}{\sigma - 1} C_t^{\sigma - 1}. \]

There is a cash-in-advance constraint on demand for money.

(a) (5 points) Analyze the effect of a fully-credible exchange rate-based stabilization policy that takes place at the same time as a fall in world interest rate on consumption and real exchange rate.

(b) (5 points) How will your answer in Part (a) change if the stabilization policy is not fully credible?

(c) (5 points) Explain the impact of credibility of the stabilization policy on the terms of trade. Does credibility improve or worsen the terms of trade?

(d) (5 points) Suppose there are nontradable goods such that \( C = C^\gamma_m C^{(1-\gamma)}_x C_n^{1-\gamma_m-\gamma_x} \), where \( C_n \) denotes the demand for nontradables. Explain the impact of credibility of the stabilization policy on demand for nontradables relative to demand for tradables.

2. (20 points: 1st generation currency crisis) Suppose a banking crisis occurs and results in banking bailouts. The bailouts increase the rate of expansion of domestic credit from 1 percent to 4 percent. Use the model of 1st generation currency crisis by Flood and Garber (1984) to answer the following questions.

(a) (5 points) Assess the quantitative impact of this banking crisis on the timing of speculative attacks.
(b) (5 points) Depict the time paths of nominal and real exchange rates.

(c) (5 points) Depict the time paths of nominal and real interest rates.

(d) (5 points) How could the central bank prevent the currency crisis from arriving earlier than when the banking crisis is absent? What policy would you recommend the central bank?