COMPREHENSIVE EXAM IN MONETARY THEORY

UCLA, Department of Economics

Fall 2000

Instructions: You have four hours to complete this exam. There are two parts. Answer each part in a separate blue book.

Part One (Blue Book Number 1)

Describe the evolution of public debt in a growing economy with the following initial conditions:

(i) zero initial public debt \( b_0 = 0 \);

(ii) given initial stock of capital \( k_0 > 0 \);

(iii) no taxes;

(iv) a positive sequence of per capital government purchases \( g_t \) financed by deficit spending, and representing pure waste;

(v) a constant deficit-to-GDP ratio

\[
g_t / f(k_t) = q > 0 \quad \forall t
\]

(a) Is the fiscal policy described above sustainable according to the optimum growth model?

(b) What does the overlapping generations model say about this question? Does the OLG model put an upper bound on the fiscal policy parameter \( q \)?
Part Two  *(Blue Book Number 2)*

Write a research proposal on a topic of your choice that involves carrying out a quantitative/theoretical exercise. That is, your proposal should involve using a theoretical model to measure something and the project should incorporate both theoretical and empirical elements. Your proposal should include

(1) A clear statement of the question to be addressed.

(2) An outline of an approach for addressing the question.

(3) A formal model, including a defense of your modeling choices (functional forms, etc.).

(4) A description of the empirical aspects of the project.

(5) A description of the sorts of empirical and theoretical results you hope to obtain.

The purpose of this question is assess your understanding of what a research project entails as well as your understanding of the issues involved in studying the topic you choose. The emphasis is NOT on the originality of your proposal.