

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.