Professor Christiano  
C-11, Winter 1997  

Second Midterm  

IMPORTANT: read the following notes  

• You may not use calculators, notes, or aids of any kind.  

• Note the points each question is worth and plan your time accordingly.  
The total number of points possible is 100, and the number of points  
per question is indicated in parentheses.  

• Explain your answers carefully. Make liberal use of diagrams.  

• Write neatly and label all diagrams. We cannot give you credit if we  
cannot read your answer.  

• Write your name and TA section (whether Thursday or Friday) on each  
blue book.
1. (15) Using the framework developed in this course, explain carefully what will happen to the natural rate of unemployment if:

   (a) (7.5) there is a swing in social values and the unemployed become stigmatized (i.e., people start to think badly of the unemployed).
   (b) (7.5) there is more vigorous enforcement of antitrust legislation.

2. (10) The short run output effect of a $1 decrease in taxes is smaller than that of a $1 increase in government spending. Explain why this is so in the IS-LM, AS-AD and Keynesian Cross models.

3. (20) Suppose you observe that each of the following four variables falls: $P, Y, i, C$, and that $I$ rises. What exogenous disturbance could account for these observations and why do you think so.

4. (20) Suppose the data on interest rates and investment for some particular country over a long series of years looked as they do in Figure 1. Each point in that Figure corresponds to a particular year’s rate of investment and rate of interest. Does the evidence in that Figure contradict a version of the AS-AD model in which the investment equation has the form, $I = \bar{I} - b_2$(interest rate)? Here, $\bar{I}$ and $b_2$ are positive numbers. (Hint: think carefully about what sort of exogenous shocks may account for the fact that the data points are different in different years).

5. (35) Suppose there is an exogenous increase in $\bar{L}$, where:

   $Money\ Demand = PY[\bar{L} - L_1i],$

and $L_1 > 0$.

   (a) (5) why might such a thing happen?
   (b) (30) explain carefully, using the AD-AS model, what the short and long-run effects on $P, Y, i, C, u, W, P^e$ and $I$ are likely to be.