

14.05 Intermediate Applied Macroeconomics

Problem Set 6

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1. The Great Depression

- Briefly describe the course of the Great Depression in the US. In your answer, be sure to note when the Depression started, when it was at its deepest, and when it recovered.
- Using the Mundell-Fleming model with fixed exchange rates, briefly describe the position of the US, the UK and Germany within the gold standard in 1931. Draw graphs in the (ϵ, Y) space to illustrate your answer. [Hint: you should work with rational expectations, making use of the uncovered interest parity condition].
- When the UK devalued, explain what policies would work to inflate the economy. Draw a graph in the (ϵ, Y) space to illustrate your answer.
- Highlight the main reason why, in Temin's view, the eventual recovery was quite rapid in the US relative to other nations. What were the macroeconomic policies that lead to the recovery?

2. Great Depression and Today

Rodrigo de Rato, the head of the IMF, said, "Governments have two choices: one is to address the issue [of global imbalances] with a change in policies; the other is to let market forces resolve the problem for them, which could be much more costly and risky. The United States needs to speed up reduction of its public deficit, and we hope that this will be reflected in the administration's policies as soon as possible."

- What are the global imbalances that de Rato is speaking of?
- How could "market forces resolve the problem"? *Hint: capital imports have enabled the US to "live beyond its means" (in Eichengreen's words). If foreign countries do not wish to hold dollars, then US consumption must fall. Use a diagram in (ϵ, Y) space to show the connection between C and ϵ . Further hint: if foreigners expect ϵ to rise, what will happen to the US interest rate and investment? How will this affect ϵ ?*
- Explain why current exchange-rate regimes make this problem less acute than the global imbalances that resulted from the First World War.
- Describe how market forces resolved problems of global imbalances in the 1930s. Do these events fit de Rato's description as "costly and risky"?

- e) What would the United States government have to do to resolve its part in the global imbalances? Be specific.

3. Analysis of Labor Market Fluctuation with Friction

- a) Consider a world in which unions prevail, so that wages are set before market conditions are known. In other words, nominal wages are fixed. Demonstrate in a graph drawn in $(w/p, L)$ space how this market could sustain involuntary unemployment. In this model, when there are fluctuations in the market for goods, does the labor market stay on the labor supply curve or the labor demand curve? Why?
- b) Now consider a world where unions play an insignificant role in the wage setting process. Suppose, in fact, that wages are perfectly flexible. Assume imperfect competition in the product market, so that $P = \bar{P}$ up to some y^{max} , at which point the producer will refuse to produce the product at \bar{P} . First, discuss what determines y^{max} . How does the producer decide its value? Then show how this labor market looks in $(w/p, L)$ space. In this model, do we stay on the labor supply curve or the labor demand curve? Explain.
- c) Which model best explains the rise in unemployment in the contraction that became the Great Depression? Based on this model, show the effect of a decrease in aggregate demand on the real wage, the amount of labor employed, and unemployment in each case. Use a graph/graphs and explain. How closely do the predictions of this model match what happened historically?