

**Economics 464**  
**FINAL EXAM**

This is a two hour exam. Please make sure to provide both analytical support and economic intuition for your answers. You should spend the first ten minutes reading the exam. Good luck!

**Part I:** (30 points) Answer one of the following two questions.

1. Consider the Continuum-of-Goods Ricardian Model studied in class.
  - (A) Show that, if workers are perfectly free to move between countries, then each good will be produced in the country that has the most efficient (i.e., lowest unit labor requirement) technology for that good.
  - (B) Show that the equilibrium range of products produced in the home country is unchanged if the home country makes a transfer of income to the foreign country. What assumption of the model guarantees that this will be so?
  
2. We saw in class that, when goods prices are fixed in the short run (and output is exogenous, i.e., fixed in the short and long run), an unexpected permanent increase in the U.S. money supply leads to an “overshooting” of the spot exchange rate in the short run. Now suppose that, at the same moment, the foreign money supply also increases unexpectedly and permanently and by the same percentage as the increase in U.S. money supply. How would the exchange rate move in the short and long run in response to this unexpected permanent and equal- percentage increase in the U.S. and foreign money supplies?

**Part II:** (35 points)

Consider a “small” open economy (i.e., an economy that takes world prices as given). Suppose that this economy produces food and clothing with inputs of capital and labor. Suppose further that in the *short run* this economy looks like a Specific Factors Model economy (i.e., there is capital which is specific to the food sector, and capital which is specific to the clothing sector, and labor is perfectly mobile between the two sectors), while in the *long run* this economy looks like a Heckscher-Ohlin Model economy (i.e., capital and labor are perfectly mobile between the two sectors, with food the capital-intensive good and clothing the labor-intensive good). Finally, suppose that this economy is initially producing positive amounts of both clothing and food.

Suppose that the government of this economy imposes a “binding” minimum wage, (i.e., a minimum wage that is above the market clearing wage in the economy).

- (A) Show that, in the short run, this minimum wage will: (i) cause unemployment in the economy; (ii) cause production of both food and clothing to fall in the economy; and (iii) will lead to a higher real wage for the employed workers but lower real incomes for all capitalists in the economy.
- (B) Show that, in the long run, this minimum wage will: (i) cause unemployment in the economy; (ii) cause production of clothing to cease completely in the economy while production of food could either expand or contract in the economy; and (iii) will lead to a higher real wage for the employed workers but lower real incomes for capitalists in the economy.

**Part III:** (35 points)

Consider the AA-DD model developed in class. Suppose that the domestic government wishes to use a temporary (and unexpected) change in government spending ( $G$ ) to increase the domestic output level ( $y$ ) in the short run.

- (A) (i) Should the domestic government increase or decrease  $G$ ? (ii) What effect will this change in  $G$  have in the short run on the spot exchange rate ( $s$ ) and the domestic current account balance ( $CA$ )?
- (B) Now suppose that the foreign government wishes to counteract the effect that the domestic government’s change in  $G$  will have on the spot exchange rate ( $s$ ) you have identified in part (A) above. To accomplish this, it plans to respond to the temporary change in  $G$  with a temporary (and unexpected) change in the foreign money supply ( $M^{S*}$ ). (i) Should the foreign government increase or decrease the level of  $M^{S*}$ ? (ii) Will the foreign government’s policy response help or hinder the domestic government in its effort to achieve a short run increase in  $y$ ? (iii) Will the foreign government’s policy response contribute to a worsening or an improvement in the domestic current account balance ( $CA$ ) in the short run?