

1. Consider the following government policies. Describe and illustrate how each influences the *long-run* level of output per worker, if at all.
  - (a) (7 points) While balancing the government budget, the government decreases its funding for K-12 and college education.
  
  
  
  
  
  
  
  
  
  
  - (b) (7 points) Suppose there is an increase in the average level of income among European countries. These countries are major trading partner with the United States, resulting in an increase in exports, and therefore a decrease in the trade deficit.
  
  
  
  
  
  
  
  
  
  
  - (c) (7 points) While balancing the government budget, the government increases its funding for research and development into new technologies.
  
  
  
  
  
  
  
  
  
  
  - (d) (7 points) The government increases its spending on wasteful crap, causing larger government budget deficits.

2. Suppose that on average when people see an increase in income of \$100, their savings increases by \$10, and their purchases of imported goods increases by \$15.
- (a) (8 points) Suppose a decline in business confidence leads to a drop in investment spending by \$500 billion. What is the immediate effect on real GDP?
- (b) (8 points) Suppose the economy is in a recession, real GDP is currently \$8.5 trillion and potential GDP is \$10 trillion. The president decides to increase government spending to solve the problem. How much should government increase its spending by?
3. Suppose consumer behavior changes such that they permanently increase the amount that they decide to save of any additional income that they may earn.
- (a) (8 points) What is the effect on the expenditure multiplier?
- (b) (8 points) What is the implication for the stability of real GDP, given the potential for shocks to consumer and investment expenditures.

4. (8 points) Suppose financial and credit markets grow in such a way that makes credit more easily available to consumers. Suppose that in the years following this development, many consumers decide to save less and borrow more, to finance purchase of goods and services that improve their lifestyle. Describe and illustrate the impact on the equilibrium level of investment and equilibrium interest rate.
  
  
  
  
  
  
  
  
  
  
5. (8 points) Suppose a poor, under-developed country develops a new network of roads and highways that makes development of new manufacturing facilities, warehouses, and distribution centers more productive / more profitable. Describe and illustrate the impact on the equilibrium level of investment and equilibrium interest rate.
  
  
  
  
  
  
  
  
  
  
6. (8 points) Suppose there is an improvement in communications technology that makes workers more productive. Describe and illustrate the impact on the equilibrium level of investment and equilibrium interest rate.

7. Suppose the labor market is in equilibrium, when there is a drop in demand for final goods and services.

(a) (8 points) Describe and illustrate the effect on the equilibrium level of employment and the equilibrium wage rate.

(b) (8 points) Suppose the curve(s) shift as you describe them in part (a), but short-run sticky wages prevent the wage from changing from its initial equilibrium level. Given the shift(s) and no change in wages, describe the effect on the labor market.