

Homework 8
Principles of Economics
Prof. Sarah West
30 points

1. **(4 points)** Use information from the website of the Bureau of Labor Statistics (<http://www.bls.gov>) to answer the following questions:
 - a. How much has the price level in the U.S. risen between January of 2010 and January 2011?
 - b. For what categories of spending have prices risen the most? By what percentages have they risen?
 - c. For what categories of spending have prices risen the least (or fell the most)? By what percentages have they changed?

2. **(6 points)** *Productivity and Wages.* You have been commissioned by the World Bank to study the determinants of the difference in incomes across countries. They ask you to focus on productivity.
 - a. Use the economy production function to derive an equation for productivity. Be sure to state any assumptions you employ.

 - b. How do wages relate to productivity? Use a graph of the firm's labor demand in your explanation.

 - c. The World Bank asks you to help them decide whether to fund a program that liberalizes trade or a program that increases saving and investment. Using simple bullet-point lists (no need for full paragraphs), discuss the relative merits of each program. Be sure to discuss how exactly each program would affect productivity.

3. **(4 points)** Explain the difference between saving and investment as defined by a macroeconomist. Which of the following represent investment? Saving? Explain.
 - a. Your family takes out a mortgage and buys a new house.
 - b. You use your \$500 paycheck to buy stock in Verizon Wireless.
 - c. Your roommate earns \$150 and deposits it in her account at a bank.
 - d. You borrow \$1,000 from a bank to buy a car.

4. **(7 points)** *Saving and Investment*
 - a. Derive the identity that relates saving to investment. You may assume that this is a closed economy.
 - b. Graph and explain the effects of the lending crisis on savings and investment. What does economic theory tell us will happen to government saving, private saving, national saving, and investment?
 - c. What was the government hoping would happen in this market when it passed the \$700 billion rescue package? Explain.

5. **(4 points)** Between 2004 and 2007, total U.S. employment increased by 6.8 million workers, but the number of unemployed workers declined by only 1.1 million. How are these numbers consistent with each other?

6. **(5 points)** Chapter 29, page 661, problem 13.