

Economics 132.03
Principles of Macroeconomics
Spring 2009

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<http://www2.bc.edu/~irelandp/ec132.html>

Second Midterm Exam

This exam has 9 questions on 4 pages; before you begin, please check to make sure your copy has all 9 questions and all 4 pages. Each of the 9 questions will receive equal weight in determining your overall exam score. You can work on the questions in any order, but please be sure to keep your answers to all of the parts of a specific question together in your exam book.

1. Suppose that Intel sells 1,000,000 newly-issued shares of stock to American savers.
 - a. Is this sale of stock an example of direct finance or indirect finance?
 - b. Are the newly-issues shares debt or equity?
 - c. If Intel's sales decline because tough economic times cause other businesses to cut back on their computer purchases, what must Intel do first: make dividend payments to the holders of these newly-issued shares or make interest payments to the holders of its previously-issued bonds?

2. Consider a closed economy in which GDP (Y) equals \$15 billion, consumption (C) equals \$9 billion, government purchases (G) equal \$1.5 billion, and tax revenue (T) equals \$1 billion. Use this information to answer the following questions (*note*: if you show your calculations and use the correct formulas, we can give you partial credit even if you make a mistake with the arithmetic):
 - a. What is investment equal to in this economy?
 - b. What is national saving equal to in this economy?
 - c. What is public saving equal to in this economy?
 - d. What is private saving equal to in this economy?
 - e. Is the government running a budget surplus or a budget deficit in this economy?

3. Suppose that the President and Congress decide to **raise** the rate at which savers must pay taxes on the interest payments they receive from bonds and the dividend payments they receive from stocks.
 - a. Does this change in policy shift the demand curve or the supply curve in the market for loanable funds?
 - b. Use a supply-and-demand diagram for loanable funds to show in which direction the relevant curve shifts.
 - c. Does the interest rate rise or fall as a result of this change in policy?
 - d. What happens to investment as a result of this change in policy?
 - e. What effect would this policy have on the productivity of US workers?

4. For each case described below, indicate whether the person would be classified by the Bureau of Labor Statistics as employed, unemployed, or not in the labor force.
 - a. William lost his job four months ago. He would like to work but gave up searching for a job six weeks ago.
 - b. Frank quit his job six weeks ago and went back to school full time.
 - c. Susan was fired six weeks ago. If the economy was better, she would look for a job, but she figures it's no use searching and decides to go back to school instead.
 - d. Karen works part-time in her family's grocery store.
 - e. Joe was just laid off from General Motors, but GM told him to expect to be called back to work within two weeks, so he doesn't bother to look for a new job.

5. Draw a supply-and-demand diagram for the labor market to show what happens when a labor union succeeds in bargaining for wages that are above the equilibrium wage; then use that diagram to answer the following questions:
 - a. What happens to the wages paid to workers who remain employed?
 - b. What happens to the number of workers who are actually employed?
 - c. What happens to the number of workers who would like to work at the prevailing (union) wage?
 - d. What happens to the number of workers who would be classified by the Bureau of Labor Statistics as unemployed?

6. Consider each of the following labor-market developments. In each case, indicate whether the event raises or lowers the natural rate of unemployment, and whether that effect arises because of a change in the amount of frictional unemployment or because of a change in the amount of structural unemployment.
- The government raises the minimum wage, already above the equilibrium wage, even higher.
 - Networking sites like LinkedIn are created and allow employers to find workers more easily and workers to find jobs more easily.
 - Firms start paying “efficiency wages.”
 - Investment banks have to let some employees with backgrounds in finance go because of losses in the financial markets, but at the same time the US Treasury decides to hire more specialists in finance to help the government help bail out those troubled banks.
 - The US Congress and President pass legislation that makes it easier for labor unions to organize workers at more firms in more industries.

7. Bill has the following assets:

Asset	Dollar Value
Money market mutual funds	\$8
Stock market mutual funds	\$50
Currency	\$7
Certificates of deposit	\$11
Savings deposits	\$20
Checking deposits	\$3
Shares of General Motors stock	\$100
Travelers' checks	\$2

- What is the total dollar value of Bill's assets that are considered part of M1? (*note*: here and below, if you show the details of your calculations, we can give you partial credit even if you make a mistake with the arithmetic).
- What is the total dollar value of Bill's assets that are considered part of M2?
- Suppose that Bill also has a credit card, with \$10 in charges on his most recent unpaid bill. How does taking this credit card debt into account change the dollar value of Bill's assets that are considered part of M2?

8. Consider an economy in which there are no banks.
 - a. If the central bank conducts an open market operation in which it buys \$100 of previously-issued government bonds from individual savers, what happens to the money supply?
 - b. If, later, the central bank conducts a second open market operation in which it buys another \$100 of previously-issued government bonds from individual savers, what happens to the money supply?
 - c. If, after the first two open market operations described above, the central bank conducts a third open market operation in which it sells \$50 in government bonds back to individual savers, what happens to the money supply?

9. Consider an economy in which the central bank has issued 100 \$1 bills.
 - a. If there are no banks in this economy, what is the value of the total money supply?
 - b. If there are banks in this economy, if people deposit 50 of the \$1 bills in these banks and hold the rest as currency, and if all banks hold 100% of their deposits as reserves, what is the total money supply?
 - c. If there are banks in this economy, if people deposit all 100 of the \$1 bills in these banks and therefore hold no currency, and if all banks hold 100% of their deposits as reserves, what is the total money supply?
 - d. If there are banks in this economy, if people deposit all 100 of the \$1 bills in these banks and therefore hold no currency, and if all banks hold 10% of their deposits as reserves, is the money supply going to be larger than, smaller than, or the same as what it was in part (c), above, in the case of 100% reserve banking?
 - e. Comparing the last two cases from parts (c) and (d) above, is wealth created, destroyed, or left unchanged by the activities of the banking system when banks decide to hold only 10% of their deposits in the form of reserves instead of holding 100% of their deposits as reserves?