

Write your name on the cover of the test booklet and nowhere else. Enclose this sheet with the booklet. The Excel file will be handed in via Moodle. Your name will only appear on a page of the file that has nothing else on it. Failure to follow these directions will cost you 1 point. The test has 100 points (to be scaled up to 170 points) and is scheduled to take 50 minutes (but you can take the full 2 hours.) Therefore, expect to spend 1 minute for every 2 points. For example, a 10-point question should take 5 minutes.

1) (8 points each) Answer TWO of the following parts. **Show all work and briefly explain all answers.**

- A) Use the balance sheet to the right to figure out how much goes in the box "Equity". Show all work
- B) How much excess reserves does this bank have?
- C) How would the balance sheet change if the bank loaned out \$5?

| Assets | | Liabilities & NW | |
|-----------------|--------|------------------|--------|
| Cash | \$10 | Checking accts | \$900 |
| Deposits at Fed | \$20 | Savings accts. | \$1100 |
| Loans | \$1500 | Loans | \$5 |
| Bonds | \$1000 | Other | \$0 |
| Other | \$70 | Equity | ? |

2) (10 points) Answer EITHER Part A OR Part B.

- A) Back in the 1930's many people lost confidence in the banking system and started to keep their money in their mattress rather than in the bank. What did this do to the monetary base, money multiplier, and money supply? Explain your logic.
- B) If the Fed was to raise the discount rate, then how would that affect the monetary base, money multiplier, and money supply. Explain your logic. You can give either the explanation of how it is supposed to work, or the explanation of how it actually works, but you must specify which you are explaining.

3) (16 points) Answer EITHER Part A OR Part B.

- A) The government is running a big deficit. Suppose that President Obama decided to balance the budget by creating a new tax. Which of the following taxes would be best from an economist's point of view? Explain your logic discussing distortions and ignoring fairness and equity concerns. Your choices of taxes are a tax on food items with high sugar contents and a tax on water.
- B) Name two things a central bank can do to get credibility. Explain how those actions will give credibility.

4) (18 points) Answer EITHER Part A OR Part B.

A) Suppose that the following equations describe the economy: $G = 250$, $TR = 300 - 0.2Y$, $INT = 100$, and $T = 0.4Y$. If GDP is 1000 and the full employment level of GDP is 1200, then what are the budget deficit/surplus, the primary budget deficit/surplus, and the full employment deficit/surplus? Show all work. Is this government doing good fiscal policy? Explain your logic.

B) Suppose that the tax rates are given in the table to the right. What are your total taxes paid, marginal tax rate, and average tax rate if your income is \$50,000.00? Show all work and briefly explain what you did.

| Income | Rate |
|---------------------|------|
| \$0 - \$20,000 | 5% |
| \$20,000 - \$40,000 | 10% |
| \$40,000 - \$90,000 | 20% |
| > \$90,000 | 30% |

5) (40 points) Use the Excel file [exam4.xlsx](#) to predict sales until May 2010. Find the seasonally adjusted value for sales if the sales this month (Dec. 2009) are \$120. What does the TSF for April tell you?