Midterm #2 Fall 2004
Econ 100B Questions

125 points total; 62 minutes total. (2 points per minute)

Question 1 (25 points; 12 minutes)

(A) (5 points) When real interest rates fall, what happens to investment spending? Why?
(B) (5 points) When nominal interest rates fall, what happens to real money demand? Why?
(C) (5 points) When an economy is experiencing hyperinflation, everyone blames the government authorities who control the money supply. Why?
(D) (5 points) When the amount of output produced is unchanged from one year to the next but the potential (full-employment) amount of output rises between the same two years, what happens to the unemployment rate? Why?
(E) (5 points) What is a "yield curve"? Draw a graph of a typical yield curve at right.

Question 2 (10 points; 5 minutes)
Explain how the development of information technology (IT, including the internet) may have made the economy more responsive in the short run to Federal Reserve changes in the interest rate.

Question 3 (10 points; 5 minutes)

Last Wednesday, the Federal Reserve increased short-term interest rates by one-quarter point. In the short run, what effect would the increase in real interest rates have on real output? Clearly and in detail, explain why. Supplement your answer with a graph.

Question 4 (22 points; 11 minutes)
One of the hallmarks of the George W. Bush Administration is the series of tax cuts implemented since 2001. Suppose the tax cuts have all decreased the tax rate, t.
(A) (4 points) When the tax rate is cut, what happens to the spending multiplier? Why? (Use economic intuition, not the formula for the multiplier, to explain why.)
(B) (8 points) Assume the Fed does not change the real interest rate. In the short run, what effect does a

decrease in the tax rate have on the level of output? Clearly and in detail, explain why. Supplement your answer with a graph.

(C) (10 points) <u>In the long run</u>, what effect does a decrease in the tax rate have on investment? Clearly and in detail, explain why. Supplement your answer with a graph.

Question 5 (20 points; 10 minutes)

Suppose the following equations describe the economy.

$C = 100 + 0.8Y^D$
$T = 0.10Y$
$I = 2{,}000 - 1{,}500r$
$G = 1{,}500$
$GX = 500 - 1{,}000r$
$IM = 0.12Y$
$Y^* = 10{,}000$

Math hints (some aren't needed)
8% of 2500 is 200
$1 - 0.84 = 0.16$
$100 / 2{,}500 = 4 / 100$
$3{,}900 / 4 = 975$
$3{,}900 / 0.16 = 24{,}375$
$0.8 \times 0.9 = 0.72$

(A) (10 points) <u>In the long run</u>, what is the equilibrium value of the real interest rate? Show your work, or no points.

(B) (10 points) <u>In the short run</u>, if the real interest rate is 8 percent (0.08), what is the equilibrium value of real GDP? Show your work, or no points.

Question 6 (38 points; 19 minutes)

In the last decade in the United States, large drops in government saving and household saving have been offset by increased foreign saving. In 1995, foreign saving was 17 percent of gross investment, but in 2003, foreign saving was over 33 percent of gross investment. Economists are concerned that such heavy reliance on foreign saving – the greatest in modern times for the United States – makes the U.S. vulnerable to sudden changes in foreign confidence in the health of the U.S. economy.

Last week, the U.S. dollar fell to new lows (that is, the price of foreign currency rose to new highs). Treasury Secretary John Snow embarked Sunday on a European tour intended to prop up support for the dollar and for the U.S. economy.

(A) (10 points) Critics charge that the increased reliance on foreign saving is the United States own fault, due to exploding federal budget deficits. Explain their charge.

(B) (10 points) Treasury Secretary Snow urged European countries to "grow their economies" and thus increase their incomes. What effect would such a policy have <u>in the short run</u> on U.S. net exports? On U.S. income? What effect would the policy have <u>in the long run</u> on real interest rates in the U.S.? Explain.

(C) (12 points) Economists fear that foreign currency traders could suddenly lose confidence in the dollar. If indeed traders became fearful of a future dollar depreciation (that is, a rise in the U.S. real exchange rate), their sudden fear could make them move their wealth out of dollar-denominated assets and into other currencies. What effect would heightened traders' fear have <u>in the short run</u> on the real exchange rate? On U.S. net exports? On U.S. income? What effect would the policy have <u>in the long run</u> on real interest rates in the U.S.? Explain.

(D) (6 points) Consider three policy positions:

(i) Economists' recommendation of reducing U.S. government borrowing
(ii) Snow's approach of encouraging an increase in U.S. exports
(iii) Do nothing

Choose one of these three policy positions. Give one reason why your policy position is good for the economy. Give one reason why we should be cautious in embracing your policy position.