Economics 101b; Fall 2001; Problem Set 4

Due in class October 3

1. Why, in the flexible-price model, can we be confident that labor demand is equal to the labor force, and that real GDP and national income are equal to potential output?

2. Explain--qualitatively--the direction in which consumption, investment, government purchases, net exports, the exchange rate, the real interest rate, and potential output move in the flexible-price model if the government raises taxes.

3. Suppose that in the flexible-price model the government increases taxes and government purchases by equal amounts. The tax increase reduces consumption. What happens--qualitatively: tell the direction of change only--to investment, net exports, the exchange rate, the real interest rate, and potential output?

5. Why does the investment demand curve slope down and to the right on the flow-of-funds diagram? Why does the total savings curve slope up and to the right on the flow-of-funds diagram?

6. Suppose that the relevant parameters of the economy are:

$t = 0.33$	A tax rate of 1/3.
$I_r = 90$	A 1 percentage point fall in the interest rate raises investment spending by $90 billion a year.
$C_y = 0.75$	A marginal propensity to consume of three-quarters.
$\varepsilon_r = 10$	With an initial value for the real exchange rate ε set at the traditional indexed value of 100, a 1 percentage point change in the interest rate difference vis-à-vis abroad generates a 10% shift in the exchange rate.
$X_\varepsilon = 6$	A 10% change in the exchange rate leads to a $60 billion a year change in exports.

And suppose that a terrorist attack in Manhattan causes a collapse of consumer confidence that leads consumers to decrease their annual consumption spending by $200

billion (no matter what the level of disposable income). How would the economy's flexible-price equilibrium change in reaction to this collapse in consumer confidence?

7. When President Bill Clinton took office, he spent essentially all of his political capital on his first-year effort to raise taxes and cut spending. What, qualitatively, does the full-employment model say should have been the consequences of these policies?

8. Consider two economies. In one, the relevant parameters are:

$Y^*=\$10,000$	(In billions: potential output equals $10 trillion)
$t = 0.33$	Tax rate of 1/3.
$I_r = 90$	A 1 percentage point fall in the interest rate raises investment spending by $90 billion a year.
$C_y=0.75$	A marginal propensity to consume of three-quarters.
$\varepsilon_r=10$	With an initial value for the real exchange rate ε set at the traditional indexed value of 100, a 1 percentage point change in the interest rate difference vis-à-vis abroad generates a 10% shift in the exchange rate.
$X_\varepsilon=6$	A 10% change in the exchange rate leads to a $60 billion a year change in exports.

In the second, the relevant parameters are:

$Y^*=\$10,000$	(In billions: potential output equals $10 trillion)
$t = 0.33$	Tax rate of 1/3.
$I_r = 90$	A 1 percentage point fall in the interest rate raises investment spending by $90 billion a year.
$C_y=0.5$	A marginal propensity to consume of one-half.
$\varepsilon_r=10$	With an initial value for the real exchange rate ε set at the traditional indexed value of 100, a 1 percentage point change in the interest rate difference vis-à-vis abroad generates a 10% shift in the exchange rate.
$X_\varepsilon=6$	A 10% change in the exchange rate leads to a $60 billion a year change in exports.

Compare the effects of a $100 billion increase in government purchases on these two economies. In which economy do interest rates go up by more? In which economy does investment go down by more?

9. During the 2000 presidential campaign, candidate George W. Bush favored using the federal budget surplus to fund tax cuts while candidate Albert Gore favored using the federal budget surplus to retire parts of the national debt. Which candidate's economic policies seem likely to lead to lower interest rates? Which candidate's economic policies

seem likely to lead to higher investment? Which candidate's economic policies seem likely to lead to a lower value of the dollar?

10. When President Reagan took office, he spent essentially all of his political capital on his first-year effort to cut taxes (and spending remained unchanged). What, qualitatively, does the flexible-price full-employment model say should have been the consequences of such policies?

11. Consider a flexible-price full-employment economy in which the relevant parameters are:

$Y^*=\$10,000$	(In billions: potential output equals $10 trillion)
$t = 0.33$	Tax rate of 1/3.
$I_r = 90$	A 1 percentage point fall in the interest rate raises investment spending by $90 billion a year.
$C_y=0.5$	A marginal propensity to consume of three-quarters.
$\varepsilon_r=10$	With an initial value for the real exchange rate ε set at the traditional indexed value of 100, a 1 percentage point change in the interest rate difference vis-à-vis abroad generates a 10% shift in the exchange rate.
$X_\varepsilon=6$	A 10% change in the exchange rate leads to a $60 billion a year change in exports.

Consider a second flexible-price full-employment economy in which the parameter I_r--the responsiveness of investment to a change in the real interest rate--is lower, 60 instead of 90. What would be the difference in the effects of a $100 billion expansion in government purchases on these two economies? Why are your answers different?

12. Why does the investment demand curve slope down and to the right on the flow-of-funds diagram? Why does the total savings curve slope up and to the right on the flow-of-funds diagram?

13. Give three examples of changes in economic policy or in the economic environment that would shift the total savings curve on the flow-of-funds diagram to the left.

14. Give three examples of changes in the economic environment that would make the total savings curve on the flow-of-funds diagram flatter.

15. Give three examples of changes in the economic environment or in economic policy that would increase the equilibrium real exchange rate.