

Midterm #2

This is a closed book exam. You are required to abide all the rules of the Student Conduct Code of the University of Connecticut.

1. In the Mundell-Fleming model with a floating exchange rate, a rise in the world interest rate will lead income:
 - A) and net exports both to fall.
 - B) to rise and net exports to fall.
 - C) to fall and net exports to rise.
 - D) and net exports both to rise.

2. In the short run an adverse supply shock causes:
 - A) both prices and output to rise.
 - B) prices to rise and output to fall.
 - C) prices to fall and output to rise.
 - D) both prices and output to fall.

3. If investment does not depend on the interest rate, then the _____ curve is _____.
 - A) *IS*; vertical
 - B) *IS*; horizontal
 - C) *LM*; vertical
 - D) *LM*; horizontal

4. According to the Mundell-Fleming model, under floating exchange rates a fiscal expansion:
 - A) lowers the exchange rate, but a monetary expansion raises it.
 - B) raises the exchange rate, but a monetary expansion or an import restriction lowers it.
 - C) or an import restriction lowers the exchange rate, but a monetary expansion raises it.
 - D) or an import restriction raises the exchange rate, but a monetary expansion lowers it.

5. If $MPC = 0.75$ (and there are no income taxes) when G increases by 100, then the IS curve for any given interest rate shifts to the right by:
- A) 100.
 - B) 200.
 - C) 300.
 - D) 400.
6. If Fed A cares only about keeping the price level stable and Fed B cares only about keeping output at its natural level, then in response to an exogenous decrease in the velocity of money:
- A) both Fed A and Fed B should increase the quantity of money.
 - B) Fed A should increase the quantity of money whereas Fed B should keep it stable.
 - C) Fed A should keep the quantity of money stable whereas Fed B should increase it.
 - D) both Fed A and Fed B should keep the quantity of money stable.
7. The introduction of a stylish new line of Toyotas, which makes some consumers prefer foreign cars over domestic cars, will, according to the Mundell-Fleming model with fixed exchange rates, lead to:
- A) a fall in income and net exports.
 - B) no change in income or net exports.
 - C) a fall in income but no change in net exports.
 - D) no change in income but a fall in net exports.
8. An increase in taxes lowers income:
- A) and the interest rate in the short run, but leaves both unchanged in the long run.
 - B) in the short run, but leaves it unchanged in the long run, while increasing consumption and lowering investment.
 - C) in the short run, but leaves it unchanged in the long run, while lowering consumption and increasing investment.
 - D) and the interest rate in both the short and long runs.

9. According to the Mundell-Fleming model, import restrictions in an economy with flexible exchange rates cause net exports to _____ and in an economy with fixed exchange rates import restrictions cause net exports to _____.
- A) increase; increase
 - B) increase; remain unchanged
 - C) remain unchanged; remain unchanged
 - D) remain unchanged; increase
10. If the Fed accommodates an adverse supply shock, output falls _____ and prices rise _____.
- A) less; more
 - B) less; less
 - C) more; less
 - D) more; more
11. If money demand does not depend on income, then the _____ curve is _____.
- A) *IS*; vertical
 - B) *IS*; horizontal
 - C) *LM*; vertical
 - D) *LM*; horizontal
12. The immediate tax rebates of the 2001 Bush tax cuts are a policy most consistent with:
- A) supply side proposals to improve workers' incentives.
 - B) Monetarist monetary policy to increase the money supply.
 - C) policies to move the economy to the Golden Rule level of output.
 - D) Keynesian proposals to stimulate aggregate demand.

13. Which of the following is an example of a demand shock?
- A) a large oil-price increase
 - B) the introduction and greater availability of credit cards
 - C) a drought that destroys agricultural crops
 - D) unions obtain a substantial wage increase
14. An interpretation of why the *IS* curve slopes downward and to the right is that as income rises, national saving rises, and this increase drives the interest rate:
- A) down, thereby decreasing investment.
 - B) down, thereby increasing investment.
 - C) up, thereby decreasing investment.
 - D) up, thereby increasing investment.
15. At a given interest rate, an increase in the nominal money supply _____ the level of income that is consistent with equilibrium in the market for real balances.
- A) raises
 - B) lowers
 - C) does not change
 - D) may either raise or lower
16. Those economists who believe that monetary policy is more potent than fiscal policy argue that the:
- A) responsiveness of money demand to the interest rate is large.
 - B) responsiveness of money demand to the interest rate is small.
 - C) *IS* curve is nearly vertical.
 - D) *LM* curve is nearly horizontal.

Use paper provided to answer the following questions. Keep your answers short and precise. Do not answer what you have not been asked.

Choose 3 questions ONLY out of questions 17-20. You are required to do question 21. Question 22 is extra credit.

17. Use the *IS-LM* model to illustrate graphically the impact of the Pigou effect on the equilibrium level of income and interest rate during the Great Depression, when prices were falling.
18. The principal method used by the Federal Reserve to change the money supply is through open-market operations. Use the aggregate demand-aggregate supply model to illustrate graphically the impact in the short run and the long run of a Federal Reserve decision to increase open-market purchases. Be sure to label: i. the axes; ii. the curves; iii. the initial equilibrium values; iv. the direction the curves shift; v. the short-run equilibrium values; and vi. the long-run equilibrium values. State in words what happens to prices and output in the short run and the long run.
19. Assume that an economy is characterized by the following equations:

$$C = 100 + (2/3)(Y - T)$$

$$T = 600$$

$$G = 500$$

$$I = 800 - (50/3)r$$

$$M^s/P = M^d/P = 0.5Y - 50r$$

- a. Write the numerical *IS* curve for the economy, expressing Y as a numerical function of G , T , and r .
- b. Write the numerical *LM* curve for this economy, expressing r as a function of Y and M/P .
- c. Solve for the equilibrium values of Y and r , assuming $P = 1.0$ and $M = 1,200$. How do they change when $P = 2.0$? Check by computing C , I , and G .
- d. Write the numerical aggregate demand curve for this economy, expressing Y as a function of G , T , and M/P .

20. Assume that the LM curve for a small open economy with a floating exchange rate is given by $Y = 200r - 200 + 2(M/P)$, while the IS curve is $Y = 400 + 3G - 2T + 3NX - 200r$. The function for NX is $NX = 200 - 100e$, where e is the exchange rate. The price level (P) is fixed at 1.0. The international interest rate is $r^* = 2.5$ percent.
- Using the LM curve, find the equilibrium level of Y in the small open economy, if $M = 100$.
 - Given this value of Y , if $G = 100$ and $T = 100$, what must be the equilibrium value of NX ?
 - If this value of NX is to be achieved, what must be the equilibrium exchange rate, e ?

21. Use the IS - LM model to analyze the effects of the following shock to the *US* economy:

A) A huge oil field is discovered under the Uconn campus bringing the gasoline prices to \$1 per gallon.

B) In a move to strengthen transatlantic relationship US and EU decide to fix exchange rate between euro and the US dollar. The next day deceitful europeans impose trade barriers for the US goods.

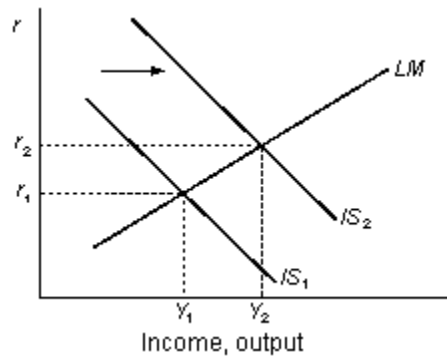
Analyze each of the shocks separately. Show what happens to the endogenous variables in the short run **and** in the long run. (What are the endogenous variables in each case?)

22. In early 1994, Mexico was adhering to a fixed-exchange-rate system. Use the Mundell-Fleming model to illustrate graphically the short-run impact on the exchange rate and level of output of increased country risk caused by the Chiapas uprising and the assassination of presidential candidate Colosio. Be sure to label: i. the axes; ii. the curves; iii. the initial equilibrium levels; iv. the direction the curves shift; and v. the new short-run equilibrium.

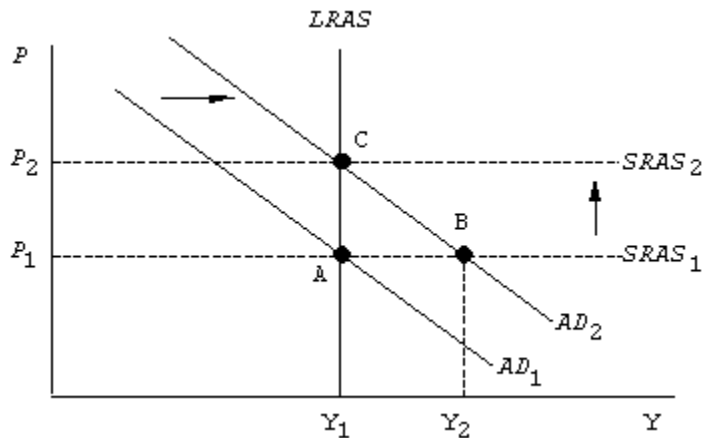
Answer Key

1. D
2. B
3. A
4. D
5. D
6. A
7. A
8. C
9. D
10. A
11. D
12. D
13. B
14. B
15. A
16. B

17. Both the interest rate and income increase because the falling prices increase money balances, thus making consumers feel wealthier. The increase in wealth causes consumers to consume more, thereby shifting the IS curve to the right.



18. In the short run output increases, while the price level remains unchanged. In the long run, prices increase and output returns to the full-employment level.



19. a. $Y = 2,700 + 3G - 2T - 50r$.
 b. $r = 0.01Y - 0.02(M/P)$.
 c. For $P = 1.0$, $Y = 2,800$ and $r = 4$; $C = 1,566.67$ and $I = 733.33$. For $P = 2.0$, $Y = 2,400$ and $r = 12$; $C = 1,300$ and $I = 600$.
 d. $Y = 1,800 + 2G - (4/3)T + (2/3)M/P$.
20. a. Equilibrium $Y = 500$. b. Equilibrium $NX = 166.67$. c. Equilibrium $e = 1/3$.
- 21.

22. The increase in the risk premium shifts IS_1^* to IS_2^* and LM_1^* to LM_2^* . To maintain the fixed exchange rate LM_2^* must shift to LM_3^* .

