

Name: _____
Section No.: _____
UM ID No.: _____
GSI: _____
Form : _____

Economics 102
Introduction to Macroeconomics
Prof. Alan Deardorff
Final Exam
April 25, 2002

INSTRUCTIONS: READ CAREFULLY!!!

1. Please do not open the exam book until you are told to do so.
2. Place your **NAME**, **SECTION NUMBER**, UM student **ID NO.**, and **FORM NUMBER** on the exam and on the scantron sheet. ***THIS IS WORTH TWO POINTS ON THE EXAM.***
3. This exam has 100 points and is designed to take about 90 minutes to complete. However, you have approximately 115 minutes to complete the test. Check that you have all 13 pages of the exam.
4. **Section A** consists of 34 multiple choice questions worth 2 points each. Answers to all of the questions in Section A should be marked on the scantron sheet using a #2 pencil. There are no penalties for guessing.
5. **Section B** consists of 2 parts for which you must provide written answers on these sheets. Point values for questions in Section B are indicated in parentheses. Please try to fit your answer into the space provided.
6. Good luck!

GSI	Section Number(s)	Days and Times
Chris Kurz	201	Thu 10-11:30
Andrew Wogman	202, 203	Thu 11:30-1, 1-2:30
Ed Knotek	205, 213	Thu 2:30-4, 11:30-1
Waldery Rodrigues	208,210	Fri 11:30-1, 1-2:30

Part A: Multiple Choice (68 points)

1. Due to Andrew's bold, daring, and always brilliant leadership of the country of Wogzania, U.S. investors drastically increase their foreign portfolio investment into Wogzania. In the long-run, this will cause the **U.S.** real interest rate to _____ and the **U.S.** real exchange rate to _____.
 - a. increase; appreciate
 - b. decrease; appreciate
 - c. decrease; depreciate
 - d. increase; depreciate
 - e. be unchanged; appreciate

2. Jimmy John has \$3 million in a checking account. One day, he decides to start a sandwich shop, so he withdraws \$1 million and uses it to buy a store. The former owner of the store, Mr. Hero, decides to put \$750,000 of the money back into the bank, but the other \$250,000 he puts into his wallet to carry around so he can show all his friends. If the required reserve ratio is 0.25, all banks hold only this amount, and everybody except Mr. Hero holds no money, the change in the money supply is:
 - a. +\$1 million.
 - b. -\$1 million.
 - c. -\$750,000.
 - d. +\$750,000.
 - e. -\$3 million.

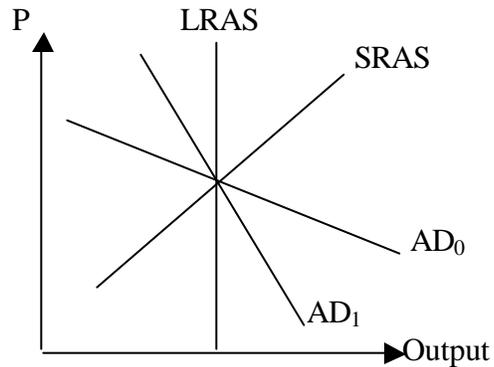
3. In the country of Edxico the marginal propensity to consume is 0.75 and there is no investment accelerator. But, investment in Edxico is very peculiar: it does not change in response to a change in the interest rate. Then if the Edxican government decides to increase spending by \$10 billion and all this money makes its way to consumers, the resulting change in output in the short run is best represented by:
 - a. \$40 billion.
 - b. \$10 billion to \$40 billion.
 - c. \$0 to \$10 billion.
 - d. \$0 to \$40 billion.
 - e. \$0

4. The marginal propensity to consume in Edxico is 0.75. If the Edxican central bank, the Ederal Reserve, expands the money supply by 10% while keeping velocity constant, then... (**assume that changes in investment do not change LRAS**)
- real GDP is unchanged in the short run
 - nominal GDP is unchanged in the short run and long run.
 - real GDP grows by 10% in the long run.
 - nominal GDP grows by 10% in the long run.
 - Prices decrease 10% in the long run.
5. The natural rate of unemployment in Wogzania is 8%. Andrew recently became the head of the central bank of the country, and he is committed to keeping unemployment at 4%. He believes he can do this by changing the money supply. If Andrew succeeds, then Wogzania will see...
- an inflation rate of 4%.
 - an inflation rate of 8%.
 - an inflation rate that is very high but constant.
 - inflation that is equal to the expected rate of inflation.
 - accelerating inflation.
6. In the long run, all of the following are true except...
- inflation must be what you expect it to be.
 - prices are fully flexible.
 - an increase in government purchases causes the real exchange rate to appreciate.
 - increases in money demand lead to lower prices.
 - the real interest rate is determined by money supply and money demand.
7. Andrew is a illegal drug dealer. He takes \$100 worth of cocaine that he had stored under his bed since last year and sells it for \$300 to a buyer on the street. Andrew then takes the \$300 and buys a very nice bottle of wine from the local Meijer. Meijer had imported the wine from France for \$200 2 years ago and had it in storage ever since. The total change in the national income accounts will be
- nothing changes in the national income accounts.
 - Y increases by \$100; C increases by \$300; I decreases by \$200.
 - Y increases by \$100; C increases by \$300; NX decreases by \$200.
 - Y increases by \$300; C increases by \$600; I decreases by \$300.
 - Y increases by \$300; C increases by \$600; I decreases by \$200; NX decreases by \$200.

8. Which of the following will cause a decrease in the trade deficit or an increase in the trade surplus?
- a. American citizens, more worried about retirement, decide to save more.
 - b. The Bush administration, in an effort to take control of the world oil market, purchases 12 billion barrels of oil.
 - c. In a world with purchasing power parity, "animal spirits" suddenly cause US businesses to increase investment.
 - d. The US economy starts to rebound from the current recession, causing foreigners to suddenly invest more in the U.S..
 - e. The Fed raises the Federal Funds rate.
9. You win the Big Game lottery jackpot!! The government gives you several options in terms of payment plans. There are no taxes on your winnings. You want to maximize the present value of the amount of money you receive. First Waldery Bank is the only bank in your economy and always pays 6% interest. You will select:
- a. \$85 million today.
 - b. \$50 million today and \$40 million in a year.
 - c. \$30 million today, \$30 million one year from today and \$30 million two years from today.
 - d. \$115 million five years from today.
 - e. \$40 million today and \$50 million next year.
10. The sacrifice ratio is 5 and you are Paul Volcker. You would like to decrease inflation by 2 percentage points in one year. This means that unemployment will change by approximately _____ percentage points.
- a. 5
 - b. 10
 - c. -5
 - d. -10
 - e. 2
11. If the Fed decides to lower the Federal Funds Rate target, this will cause
- a. the real interest rate to fall in the long run.
 - b. prices to fall in the long run.
 - c. investment to fall in the short run.
 - d. unemployment to fall in the short run.
 - e. an increase in private saving in the long run.

12. All of the following are true about economic fluctuations **EXCEPT**:
- recessions tend to occur at regular intervals
 - the length of recessions varies
 - macroeconomic variables measuring forms of income, spending, and production tend to move together
 - investment spending is relatively volatile
 - real GDP and unemployment tend to move in opposite directions
13. When does unemployment not approach its natural rate in the long run?
- When wages rise.
 - When wages fall.
 - When money supply increases at 4% a year.
 - When the level of capital increases.
 - None of the above.
14. Technological improvement does what to the Short-Run Phillips Curve?
- Shifts it left
 - Shifts it right
 - Changes the slope.
 - Nothing
 - Temporarily shifts it to the right.
15. Suppose that international speculators bid up the value of the US dollar, causing it to appreciate (in real terms) relative to other currencies. In the short run, this would
- decrease the price level, cause no change in output
 - decrease the price level and output
 - increase the price level and output
 - increase the price level, decrease output
 - decrease the price level, increase output

16. Consider the following graph:



A change from AD_0 to AD_1 could have been caused by

- a. an increase in the expected price level
 - b. investment becoming less sensitive to changes in the interest rate
 - c. an investment tax credit
 - d. a decrease in the labor force
 - e. a depreciation of the domestic currency
17. According to the sticky-wage theory, an increase in expected prices causes (in the short-run)
- a. wages to be set high, increasing the quantity supplied
 - b. wages to be set low, decreasing the quantity supplied
 - c. wages to be set low, increasing the quantity supplied
 - d. wages to be set high, decreasing the quantity supplied
 - e. none of the above
18. All of the following are valid arguments against stabilization policy EXCEPT:
- a. residential and business investment respond slowly to changes in interest rates
 - b. economic forecasting is unreliable
 - c. the process of altering fiscal policy is relatively slow
 - d. crowding out can cause fiscal policy to have an effect that is opposite to what was intended
 - e. economic conditions can change between when monetary or fiscal policy is proposed and when it is enacted

19. Suppose in the economy of Wogzania there are only two goods: televisions and peanut butter and jelly sandwiches (peanut butter and jelly sandwiches are considered one good). Given the following information, what is the GDP deflator for 2001 (use 2000 as the base year) and the CPI for 2001 (use the number of goods produced in 2000 as the market basket of goods).

	<u>Televisions</u>	<u>PB&J Sandwiches</u>
2000 Quantity	10	1000
2000 Price (\$)	500	0.5
2001 Quantity	12	1050
2001 Price (\$)	510	0.6

Note: answers are rounded to the nearest whole number.

- a. $\text{GDP deflator}_{2001} = 107$; $\text{CPI}_{2001} = 100$
 - b. $\text{GDP deflator}_{2001} = 119$; $\text{CPI}_{2001} = 123$
 - c. $\text{GDP deflator}_{2001} = 103$; $\text{CPI}_{2001} = 104$
 - d. $\text{GDP deflator}_{2001} = 123$; $\text{CPI}_{2001} = 119$
 - e. $\text{GDP deflator}_{2001} = 97$; $\text{CPI}_{2001} = 96$
20. Suppose U.S. consumers decide to consume more out of every dollar earned. In the short-run, the real interest rate will _____ and in the long-run the real interest rate will _____.
- a. be unchanged; be unchanged
 - b. increase; increase
 - c. decrease; be unchanged
 - d. increase; be unchanged
 - e. decrease; increase
21. Low-Tech Knotek is considering a new investment project in scooters. The initial cost of the investment will be \$100,000 and it will pay back \$125,000 in one year. If the interest rate is 20%, what is the present value of the project?
- a. -\$25,000
 - b. \$25,000
 - c. \$4166.67
 - d. \$104166.66
 - e. \$41,666.67
22. In the long-run, if the Fed sells bonds
- a. the real interest rate increases
 - b. the real interest rate decreases
 - c. the price level decreases
 - d. the price level increases
 - e. both the real interest rate and the price level are unchanged

23. In general, _____ policy takes longer to decide upon and execute, while _____ policy takes longer to impact the economy.
- Fiscal; fiscal
 - Fiscal; monetary
 - Monetary; fiscal
 - Monetary; monetary
 - Tax; spending
24. Government budget deficits tend to _____ in expansions because income tax revenue tends to _____ while transfer payments tend to _____.
- Fall; increase; decrease
 - Fall; decrease; increase
 - Fall; decrease; remain unchanged
 - Rise; decrease; increase
 - Rise; increase; decrease
25. If nominal wages are fully indexed for inflation, then the sticky wage model tells us that AS will be _____, assuming that there are no menu costs or misperceptions by firms.
- horizontal
 - upward sloping
 - vertical
 - downward sloping
 - cyclical
26. Government spending increases by 200 in the land of Alandear, leading to an increase in GDP by 800. If we assume no crowding out or price effects, what is the value of the MPC in Alandear?
- 2
 - 4
 - .5
 - .75
 - .9

27. Unemployment has increased from 5 to 10 percent in the economy of Trafalgar from 1999 to 2000. In 1999 Trafalgar was in long run equilibrium. In 2000 Trafalgar had an inflation rate of 10 percent. The equation of Trafalgar's Phillips Curve is

$$\text{Unemployment rate} = \text{Natural rate of unemployment} - 0.5 \left(\text{Actual inflation} - \text{Expected Inflation} \right)$$

What was expected inflation in 2000?

- a. 20%
 - b. 30%
 - c. 0%
 - d. 4%
 - e. not a clue
28. In the sticky-wage model, an increase in the price level causes the real wage to _____ and the marginal productivity of labor to _____.
- a. increase; decrease
 - b. increase; increase
 - c. decrease; increase
 - d. decrease, decrease
 - e. increase; not change
29. Which of the following is **not** expected to increase the price of oil in coming months?
- a. Deliberate restrictions of oil output by OPEC members.
 - b. Increased demand for oil due to the expansion of the U.S. economy.
 - c. Uncertainty about oil supplies from the Middle East due to political and military conflict.
 - d. Declining inventories of oil.
 - e. Cheating by OPEC members who seek greater oil revenues than the cartel permits.
30. The Fed has recently signaled that future Fed policy is less likely than before to be expansionary, and more likely to be contractionary. Why?
- a. Because real interest rates today are high.
 - b. Because the U.S. economy appears to be coming out of recession.
 - c. In order to stimulate economic growth.
 - d. To make it easier for the government to borrow and finance its deficit.
 - e. Because Alan Greenspan has more power than the majority of Fed Board members, who would prefer expansion.

31. What is meant by “jobless claims”?
- Requests for unemployment insurance payments.
 - Estimates by the Bureau of Labor Statistics of the unemployment rate.
 - The natural rate of unemployment
 - Workers who are not counted as unemployed because they have given up looking for work.
 - Forecasts that a recession is about to begin.
32. Why is it important for Alan Greenspan to know the rate at which labor productivity is increasing?
- Because he is the Director of the Labor Department’s Bureau of Labor Statistics.
 - So as to know whether observed wage increases imply inflation that needs to be combated.
 - Greater labor productivity requires greater investment, in order to keep up with it.
 - Greater labor productivity increases the demand for labor, stimulating inflation.
 - Stable prices require that the money supply contract at a rate equal to the growth in labor productivity.
33. In 2001, several commentators argued for and against tax cuts in various forms as means to stimulate the U.S. economy. Which of the following is **not** one of the arguments that was made?
- Tax cuts, when promised for the future, raise long-term interest rates and discourage investment.
 - Tax cuts that are only temporary have little effect on consumer spending.
 - Tax cuts need not increase government deficits, since they force it to restrain government spending.
 - Tax cuts reduce disposable income, undermining consumer confidence.
 - Tax cuts targeted on low-income consumers promise the greatest increases in consumer spending.
34. How have macroeconomic fluctuations in the U.S. economy during the last 50 years (1950-2000) compared to those in the preceding 50 years (1900-1950)?
- There were no fluctuations in 1900-1950.
 - There were no fluctuations in 1950-2000.
 - There were fluctuations in both periods, similar in size and frequency.
 - Economic downturns were larger in 1900-1950 than they were in 1950-2000.
 - Economic downturns were larger in 1950-2000 than they were in 1900-1950.

c. If everyone saves more, then this will be good for the US economy.

d. Thailand's GDP is currently growing at 15%, while US GDP is growing at 4%.
Thailand will eventually catch up to the US in terms of GDP.

B-2 Explain the changes in the economy (10 points)

It is 1929 and the stock market has just crashed. Assume that this decrease in wealth lowers consumption, C . As instructed in parts A-D below, fill in the following graphs that describe the economy with the short-run and long-run impacts of such a change in C . Y_{bar} is long run equilibrium GDP.

You must complete parts A-D by finishing the diagrams below.

- A. Show the short run changes in AS/AD and label your graph. Label the new short-run values for Y and P as Y_1 and P_1 . (3 points)
- B. Show the long run changes in the AS/AD diagram. Label the new long-run values for Y and P as Y_2 and P_2 . (3 points)
- C. Show what happens to Y over time. (2 points)
- D. Show what happens to P over time. (2 points)

