Department of Economics
University of California, Berkeley

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Econ 1, Fall 2002

ECONOMICS 1
MIDTERM EXAM # 2

DO NOT OPEN THIS EXAM BOOKLET UNTIL YOU ARE INSTRUCTED TO DO SO!

1) One question asks you to CHOOSE. Follow instructions.
2) This is a closed-book, closed-notes, no-calculator exam.
3) CHEATING IS NOT TOLERATED.
4) Write answers in the space provided.
5) DO NOT write on the backs of pages.
6) Be clear, complete and concise in your explanations.
7) If you get stuck on a question, move on & return to it later.
8) STOP writing when instructed to do so.
9) Pass exam to your GSI.
10) No one can leave until all exams are collected. Wait for Instruction!

Keynesian Model (SR Algebraic)		20
AD-AS Analysis (Graphical)		18
T/F/U		15
Monetary & Fiscal Policy		12
Keynesian Model (SR Graphical)		10
Extra Credit		3
TOTAL		75 + 3

NAME & SID:
GSI's NAME:

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1) Keynesian Model (SR Algebraic) (20 points; 13 minutes)

Show all steps.

Consider the following economy. (You can do the additions in your head.)

$C = \overline{C} + c(Y - T) - br$ = 390 + c(Y-T) – 30r

$I^p = \overline{I} - ar$ =150 - 20r

G=$\overline{G}$=100

NX=0

T= $\overline{T}$=100

MPC=c=0.9

a) (5 points) Give the general equation for AD. Derive the expression for aggregate demand for this economy in terms of Y and r.

b) (1 point) Give the exact value of autonomous aggregate demand for this economy.

c) (2 points) Give the general formula for the income-expenditure multiplier. Give the exact value for this economy.

d) (7 points) Suppose r is 10% (that is 0.10). What is SR equilibrium output? What is the output gap if Y*=5500? Is it recessionary or expansionary? By how much does autonomous expenditure need to change to eliminate the gap?

e) (5points) What value of r eliminates the output gap if Y*=5450?

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2) AD-AS (*MATERIAL COVERED AFTER MT2 SUMMER 03)*
Answer each part separately.

a) (8 points) The economy is at long-run equilibrium. Show this on the AD-AS diagram (label initial equilibrium A). The government implements an **increase in taxes** $\bar{T}$**.** Show SR outcome (label B). Show LR outcome (label C) after the economy self-corrects. What happens to prices and production as the economy moves from B to C?

b) (8 points) The economy is at long-run equilibrium. Show this on the AD-AS diagram (label initial equilibrium A). A more lenient immigrant labor policy **increases Y*** (label B). What stabilization policy do you suggest? What is LR outcome under the stabilization policy?

c) (1 point) Which policy (monetary or fiscal) may affect potential output as well as aggregate demand?

d) (1 point) The impact of which policy (monetary or fiscal) can be predicted more exactly?

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3) Definition (T/F/Uncertain) (15 points; 10 minutes)

First, define the term. S**econd,** state whether statement is T/F/Uncertain. **Third,** give a succinct reason for your conclusion.

a) (5 points) If the Fed announces that it is raising the targeted Federal Funds rate from 1.75% to 2.0%, this means that the Fed will engage in selling of bonds via open market operations to bring about a reduction in bank reserves and the money supply M1.

Define Money Supply M1.

b) (5 points)) Bill was fired 5 weeks ago and decided to stay at home and take care of the house and pets while his wife Hillary continues to work as a highly-paid attorney. Bill is classified as unemployed.

Define Unemployment Rate.

c) (5 points) George has financed his house with a 30-year mortgage at 6% annual interest, and he expects the inflation rate to continue at its current annual rate of 3%. An inflation shock, which causes inflation to jump to 5%, makes George worse off and the bank better off.

Define the relationship between the real rate of interest and the nominal rate of interest.

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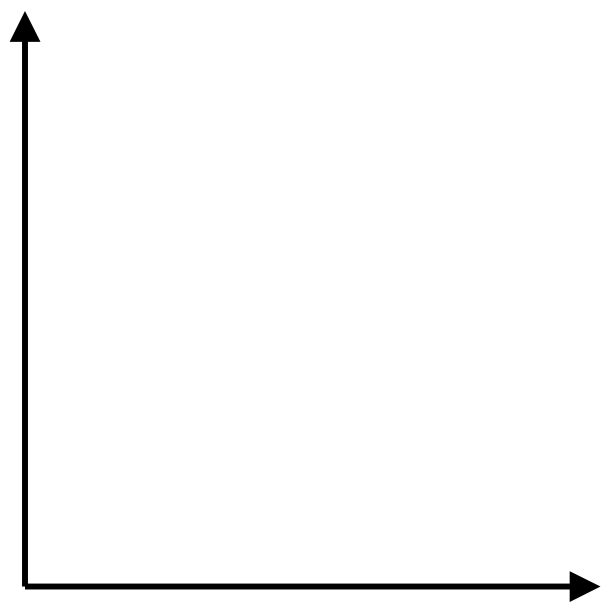
4) Keynesian Model (SR Graphical) (10 points; 7 minutes)

Assume the U.S. economy has an expansionary gap. Assume that policy makers enact **either** monetary **or** only fiscal policy to stabilize the economy (but not both).

CHOOSE monetary or fiscal policy.

i) Show in a Keynesian cross diagram the initial state of the economy (label A).
ii) State the precise form of stabilization policy.
iii) Show the effect of this policy on your diagram and explain.



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5) Monetary and Fiscal Policy (12 points; 8 minutes)
Answer all parts.

a) Monetary Policy. (5 points)

Assume the U.S. economy has a recessionary gap.

i) What type of open market operations will the Fed conduct to achieve a new targeted Federal Funds rate?

ii) If reserves are changed by \$X, given the current legally-required reserve-deposit ratio (RR), what will happen to money supply M1 (assume all money is kept in demand deposits)?

b) Fiscal Policy. (7 points)

Assume the economy is characterized by the simple SR Keynesian model and that G= $\overline{G}$ + G_S, where $\overline{G}$ is autonomous and automatic stabilizer G_S = -k(Y-Y*) with 0<k<1.

i) What is the purpose of this automatic stabilizer?

ii) If $C = \overline{C} + c(Y - \overline{T})$, and all other AD components except C and G are autonomous, what is the income-expenditure multiplier? Is it lower or higher than if all of G were autonomous?

<u>Extra Credit News Questions (3 points)</u>

1) Non-farm productivity growth was _______% over the past year ending in September, the highest it as been in 19 years.
2) The growth rate of GDP for the 3rd quarter of 2002 was ______%.
3) On November 6, the Fed lowered the target Federal Funds rate to _____ % and the discount rate to_______%.

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