Final Exam 14.02

Spring 2000

Full Name:
TA Name:
Section Time:

STOP! Failure to follow these instructions may be detrimental to your grade.

The exam consists of 2 parts on 2 pages. Please answer both parts completely. The total score is 102. You have 180 minutes to complete the exam. **Please use two blue books for the exam, one for each part that you answer.** Be sure to LEGIBLY write your full name, TA's name, section time, and *part number* on the front of each blue book. When finished with the exam, you must return all blue books and this signed exam sheet to a proctor.

If you think that any question is ambiguous, then say so in your answers and explain what assumptions you made to resolve the ambiguity.

You can use a calculator, but no notes or other assistance are allowed.

GOOD LUCK!

Part I – Blue Book 1 (54 points total). This part consists of one question: Question 1.

Question 1. True or False (3 points each). *Do not provide an explanation.*

1. A tax rate set by legislation is an example of an exogenous variable in a macro model.

2. Two important goals of econometric estimation of macro models are to test the size and timing of responses to changes in policy.

3. The price level and the interest rate both have a positive effect on the nominal demand for money.

4. A central bank determined to keep real GDP at a target level can be described in the IS-LM framework as producing outcomes equivalent to those that would occur with a vertical LM curve.

5. An increase in productivity growth that is not immediately matched by higher wage demands may temporarily reduce the NAIRU.

6. An increase in the marginal propensity to import will increase the multiplier of a fiscal expansion.

7. An exogenous increase in foreign demand for our exports has a multiplier effect in the same way as an exogenous increase in government purchases.

8. If two countries share the same technology, the one with the higher savings rate always has the higher income per capita.

9. The Asian miracle (i.e. the very high average growth rates in East Asia during the last few decades) is mainly due to high investment rates and adoption of foreign technology.

10. Modern macro-econometric models (such as the one discussed in class) suggest that a fiscal expansion will have a positive effect on real GDP in the long run.

11. During the last 40 years, the US federal budget has been mostly in surplus.

12. The fiscal expansion of the Reagan years, countered by the monetary policy of the Fed, led to an appreciation of the dollar in the 80's.

13. One of the reasons behind the financial crises in Asia in recent years was the fact that the affected countries had been borrowing in their own currencies to finance projects whose returns were fixed in foreign currency.

14. The aggregate demand curve is downward-sloping because an increase in prices decreases real money supply.

15. If the elasticity of import quantities with respect to the exchange rate is 0.5, then a devaluation of 10% will lead to a decrease in the value (in domestic currency) of imports of approximately 5%.

16. According to the life cycle theory, an unexpected permanent wage increase should have a larger effect on consumption the closer to retirement a worker is.

17. Exports can never exceed GDP.

18. The multiplier effect of a fiscal expansion largely comes from the fact that consumption increases with income.

Part II. – Blue Book 2 (48 points total) This part consists of two questions: Question 2 and Question 3.

The goal of these questions is to demonstrate to you how to use your new tools to "read the newspaper" as a macroeconomist. The familiar IS-LM and AS-AD diagrams are to be used to evaluate macroeconomic responses to events and policies. Respond to each question by: indicating (with a graph) and explaining (with a couple of brief sentences) which curves would shift *in the short-run*, in what direction, and what the effect is on output, the interest rate and, in Question 3, *also* the price level.

Assume an open economy with flexible exchange rates, unless otherwise stated.

Question 2 (4 points each). Show the effects only in IS-LM (assuming that the price level is fixed).

a) Businesses become more optimistic about future demand for their goods.

b) Our major trading partner eliminates tariffs previously imposed on our exports.

c) A 10 billion dollar military program is eliminated, and each of the 100 million households are given a $100 reduction in taxes.

d) In response to a sudden mood shift, stock prices drop 20% and stay lower for a sustained period.

e) The government and the central bank agree to boost output without changing the interest rate.

f) Interest rates go up in the rest of the world. *(For this question only, assume that the exchange rate is fixed: this means that the central bank keeps the exchange rate at a fixed level.)*

Question 3 (6 points each). Now assume that prices can also adjust. Show the effects both in AS-AD and IS-LM (indicating the effect of a price change on the LM curve as well).

a) The nation's central bank sells Treasury bonds in the open market.

b) The nation's tax laws are changed to reduce tax rates.

c) Unions become more powerful.

d) The OPEC nations end their cartel, causing world oil prices to drop by $10 per barrel.