

## ANSWER OUTLINE

ECONOMICS 353

L. Tesfatsion/Fall 05

EXERCISE 8: Six Questions (8 Points Total) DUE: Tuesday, Oct 25, 2005, 2:10pm

**\*\*IMPORTANT REMINDER: LATE ASSIGNMENTS WILL NOT BE ACCEPTED  
– NO EXCEPTIONS\*\***

### EXERCISE INSTRUCTIONS:

- (1) Please **fill in your name and student ID number** on Side 1 of your bubble sheet and write **353 Exercise 8** in the top margin of Side 1.
- (2) Use a number 2 pencil to **mark your answers** on Side 1 of the bubble sheet to the first five questions Q1 through Q5, below, which are in multiple choice format.
- (3) The sixth question Q6 is a Web browse exercise that asks you to consider a huge experiment underway in parts of Europe involving an attempted movement towards fuller economic and financial integration (e.g., the adoption of the euro as a single currency). Please put your **name and student ID number** at the top of your print-out sheet for Q6 along with **353 Exercise 8** and **separately** hand in this print-out sheet for Q6 in addition to your answer bubble sheet for questions Q1 through Q5.
- (4) Each question Q1 through Q5 is worth 1 point, and Q6 is worth 3 points.

**Q1 (1 Point).** In a world divided between HC and ROW, multiplying any valuation  $V$  measured in HC currency units by the HC NOMINAL EXCHANGE RATE \_\_\_\_\_.

- A. corrects  $V$  for changes in the HC price level
- B. transforms  $V$  into a valuation measured in ROW currency units
- C. corrects  $V$  for changes in the HC inflation rate
- D. transforms  $V$  into pure quantity terms

**Q2 (1 point).** In a world divided between HC and ROW, the HC REAL EXCHANGE RATE is defined to be

- A. the HC nominal exchange rate minus the ROW inflation rate.
- B. the HC nominal exchange rate minus the HC inflation rate.
- C. the HC nominal exchange rate multiplied by the ROW price level and divided by the HC price level.
- D. the HC nominal exchange rate multiplied by the HC price level and divided by the ROW price level

**Q3 (1 Point).** In order for the PURCHASING POWER PARITY (PPP) CONDITION to reduce to a straightforward application of the Law of One Price, the following conditions need to hold:

- A. the HC and ROW aggregate price levels must equal each other over time
- B. HC and ROW must produce the same bundle of goods and services.
- C. information about availability and prices of goods and services must be freely available to everyone in the HC and ROW, and there must not be any trade barriers between the HC and ROW.
- D. all of the above.
- E. only B and C above.

**Q4 (1 Point).** Suppose the inflation rate in Portugal is 8 percent during 2005 and the inflation rate in Hungary is 12 percent during 2005. Then the PURCHASING POWER PARITY (PPP) CONDITION IN RATES-OF-CHANGE FORM predicts that, during 2005, the value of the Portuguese currency (escudos) measured in terms of Hungarian currency (forints) – i.e., the number of forints per escudo – will

- A. rise by 4 percent
- B. rise by 20 percent
- C. fall by 4 percent
- D. fall by 20 percent

**Q5 ( 1 Point).** Suppose the average nominal interest rate on bank deposit accounts across foreign countries who are major trading partners of the U.S. is 3 percent. Suppose, also, that the U.S. effective exchange rate index for these countries (i.e., a weighted average of their exchange rates measured in foreign currency units per U.S. dollar) is expected to depreciate by 1 percent. Then the INTEREST PARITY CONDITION predicts that, on average, nominal interest rates on U.S. bank deposit accounts should be about

- A. -4 percent
- B. -2 percent.
- C. 4 percent
- D. 2 percent.

**SEE THE FOLLOWING PAGE FOR  
Q6: WEB EXERCISE**

**Q6: Web Exercise (3 Points Total).** In May 1950, French Foreign Minister Robert Schuman formally presented a proposal for a united Europe, now known as the *Schuman declaration*. Since that time, parts of Europe have been attempting to bring this idea to fruition, a grand experiment in economic integration whose ultimate degree of success is still uncertain. This question asks you to consider the current state of economic integration in Europe.

**Part A: 1 Point** Explain briefly but carefully what is meant by the **European Union (EU)**? Currently (i.e., as of October 2005), which nations are members of the EU? List briefly but clearly the criteria determined at a 1993 EU meeting in Copenhagen, now referred to as the **Copenhagen criteria**, that a Central or Eastern European country must satisfy as a precondition for joining the EU.

**Answer Outline for Part A(i)**

**25 Current Members:** Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Portugal, Spain, Sweden, the Netherlands, and the United Kingdom; plus 10 new members admitted in May 2004: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia.

**Answer Outline for Part A(ii)** *Copenhagen Criteria:* The **Copenhagen criteria** are the rules developed by EU members in 1993 to help guide the EU enlargement process as additional Central and Eastern European countries have sought to join the EU. Briefly, these rules state that the candidate countries must have achieved:

- stability of institutions guaranteeing democracy, the rule of law, human rights, and respect for and protection of minorities;
- the existence of a functioning market economy as well as the capacity to cope with competitive pressure and market forces within the EU;
- the ability to take on the obligations of membership including adherence to the aims of political, economic, and monetary union.

**Source:** <http://europa.eu.int/comm/enlargement/intro/criteria.htm#cooperation>

**Part B: 1 Point** Euro notes and coins began circulation in January 2002. At the present time, which members of the EU have adopted the euro as their only currency? List briefly but clearly the criteria determined as part of the Maastricht Treaty, now known as the **Maastricht convergence criteria**, that a nation must satisfy as a precondition for joining the *euro area*, i.e., the collection of EU nations that have adopted the euro as their only currency.

**Answer Outline for Part B:(i)** Only TWELVE of the 25 current EU member countries have reached the “third and final stage of complete economic and monetary union” in which the euro has been adopted as their only currency. These 12 members are as follows: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Portugal, Spain, and the Netherlands.

*Additional Remark:* As of 10/24/05, three EU member countries (Denmark, Sweden, and the UK) have chosen not to adopt the euro as their only currency. Denmark and UK obtained special opt-outs exempting them from this transition, and Sweden rejected the adoption of the euro in a referendum vote held on September 14, 2003. The implications of Sweden's rejection of the euro in terms of its status as a EU member in good standing are still unclear.

**Answer Outline for Part B(ii) Maastricht convergence criteria:** Briefly, these criteria set out the following preconditions for "accession" into the third and final stage of the Economic and Monetary Union (EMU), in particular, accession into the euro area: a high degree of price stability (domestic and exchange rates); sustainable government finances (in terms of both government budget deficits and public debt levels), and convergence in long-term interest rates.

*Additional Remark:* More carefully stated, the Maastricht convergence criteria are as follows:

- An **exchange rate with the euro** that fluctuates "without severe tensions" by no more than 15% above and below an agreed "central parity" level in the two years preceding entrance into the euro area.
- An **annual average inflation rate** not exceeding by more than 1.5% that of the "three best-performing Member states in terms of price stability" in the year before the entry decision, and this rate should be judged to be "sustainable."
- An **annual average nominal interest rate on the 10-year benchmark government bond** no more than 2% above the annual average nominal interest rate in these same three EMU countries (i.e., the three EMU countries with the lowest inflation rates in the year before the entry decision).
- A **government budget deficit** (i.e., an excess of government expenditures over current tax revenues) below 3% of GDP.
- A **public debt** (i.e., an accumulation of government budget deficits) less than 60% of GDP.

**Sources:** [http://europa.eu.int/comm/economy\\_finance/euro/faqs/](http://europa.eu.int/comm/economy_finance/euro/faqs/)  
and <http://homepages.uel.ac.uk/dim2791s/Maastricht.htm>

**Part C: 1 Point** Explain briefly but carefully why some U.S. economists feared that the introduction of the euro currency might be harmful to U.S. interests. Have such fears been realized to date?

**Answer Outline for Part C(i):**

As noted in the online "Notes on Mishkin: Chapter 19," one of the hopes of the EMU members back in 2002, when the euro was first released in hard bill/coin circulation form, was that the euro would rival the U.S. dollar as a

reserve currency around the world. This possibility was greatly feared by U.S. economists.

Why feared? If this switch in reserve currencies were to happen, a flood of U.S. dollars would be released into the foreign exchange market over a relatively short period of time as countries replaced U.S. dollars with euros as their reserve currency. Moreover, this surge in the supply of U.S. dollars could well be accompanied by a dramatic decline in the demand for U.S. dollars as *new* demand for reserve currency was met by euros rather than by U.S. dollars.

In accordance with the Chapter 5 demand/supply theory, this would imply a sharp shift to the RIGHT in the supply curve for U.S. dollars in the foreign exchange market, together with a sharp shift LEFT in the demand curve for U.S. dollars in the foreign exchange market, resulting in a massive, rather sudden, and possibly destabilizing depreciation (drop in value) of the exchange rate  $E$  = number of euros per U.S. dollar.

Why “destabilizing”? What might currency speculators be expected to do in the face of such a substantial observed shift in reserve currency preferences from the U.S. dollar to the euro?

**Answer Outline for Part C(ii):**

The fears in Part C(i) have not been realized to date. Although the euro has strengthened against the U.S. dollar since its initial introduction in hard bill/currency circulation form in 2002 (see Mishkin Figure 1, page 436), the feared massive flight to the euro for reserve currency holdings has not taken place.

Currently (as of 10/24/05), the euro-U.S.\$ exchange rate – *conventionally reported in dollars per euro in trade publications, i.e., as  $1/E$*  – is 1.1998, which is only modestly higher than the euro-U.S.\$ exchange rate of 1.01941 back in December 2002 (the year the euro first started circulating in bill/coin form among the EMU countries). That is, the U.S. dollar has not exhibited the substantial depreciation against the euro that U.S. economists back in 2002 feared might happen.