

## Answer Outline

ECONOMICS 353 (SECTION 2)  
EXERCISE 4: 6 POINTS TOTAL

L. Tesfatsion/Spring 04  
DUE: Tuesday, February 10, 2:10pm

**\*\*IMPORTANT REMINDER: LATE ASSIGNMENTS CANNOT 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 **353-2 Exercise 4** 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. Please put your **name and student ID number** at the top of your answer sheet for Q6 along with **353-2 Exercise 4** and **separately** hand in your answer sheet for Q6 in addition to your answer bubble sheet for questions Q1 through Q5.
- (4) Each question Q1 through Q6 is worth 1 point.

**Q1.** By definition, whatever a society uses as money must

- A. be the only thing used as money in the society.
- B. be supplied solely by some central governing body in order to ensure its value over time.
- \*\*C.** be a generally accepted means of payment for goods and services and for repayment of debts as a matter of social custom.
- D. always be accepted as a means of payment for goods and services as a matter of legal right.
- E. always be accepted for debt repayments as a matter of legal right.

**Q2.** Which of the following statements about “fiat money” are accurate:

- A. Fiat money is backed (convertible into a precious metal or some other commodity).
- B. Fiat money is paper money.
- C. Fiat money is legal tender.
- D. All of the above are true by definition of fiat money.
- \*\*E.** Only B and C

- Q3.** The conversion of a barter economy to one that uses money
- A. decreases efficiency by reducing the volume of trade.
  - B. increases efficiency by discouraging specialization (division of labor).
  - \*\*C.** increases efficiency by reducing double coincidence of wants problems.
  - D. decreases efficiency by increasing the number of prices.
  - E. both C and D.
- Q4.** For an economy with exactly 20 distinct types of goods, ... goods-for-goods prices are needed to fully support exchange under a barter payment system while ... money-for-goods prices are needed to fully support exchange under a monetary payment system.
- A. 190; 40
  - B. 40; 20
  - C. 20; 40
  - \*\*D.** 190; 20
  - E. 380; 20
- Q5.** Which of the following statements is/are NOT true:
- A. Initial estimates of M1, M2, and M3 are frequently subject to significant revisions after more data become available.
  - B. The Federal Reserve induces changes in M2 through open market operations (bond purchases and sales) in an attempt to set the Federal funds rate to targeted levels.
  - \*\*C.** The three U.S. money measures M1, M2 and M3 always move closely together, and hence are good substitutes for each other.
  - D. M1 is the narrowest measure of money used in the U.S. and corresponds most closely to the theoretical definition of money.
  - E. All of the above.

**Q6 on next page**

**Q6. WEB BROWSE QUESTION** By 1865, approximately one-third of all circulating currency in the United States was counterfeit. In that year, in an effort to control counterfeiting, the Department of the Treasury established the United States Secret Service (USSS). The general policy of the USSS has been to try to maintain the security of the currency by enhancing designs every seven to ten years. For example, in keeping with this policy, a newly redesigned \$20 note – dubbed “the most secure currency in U.S. history” – was issued on October 9, 2003.

**Part A:** Identify several ways in which the design of the \$20 note was enhanced in October 2003 in an effort to deter counterfeiting.

**Part B:** Given the persistent difficulties encountered in trying to prevent the counterfeiting of paper money, do you think that a more rapid move to electronic money (“digital cash”) is desirable, in the sense that fewer security problems would arise? Provide a BRIEF discussion of this issue (300 words maximum).

**HINT FOR Q6:** See the “Websites Related to Mishkin Chapter 3” linked at the Econ 353 syllabus under Section 1.

### **Answer Outline for Part A:**

New design features meant to deter counterfeiting include the addition of subtle background colors of green, peach, and blue to both sides of the new \$20 note. Also, bunches of tiny “20” numerals are embedded in the background on the back of the new note. The words “USA TWENTY” are now printed in blue in the background to the right of the portrait of Andrew Jackson on the face of the new note. The shoulder portion of this portion is enlarged and more detailed (it now overlaps the edge design of the note). Also, two new American eagle symbols have been added on the face of the new note, the smaller using a special raised-ink process. Visible microprinting has been added just north-east of the 20 numeral on the face of the new note (and no longer appears around the portrait). More details (e.g., clouds) have been added to the picture of the white house on the back of the note.

Older security features retained for the new \$20 note include a polymer security thread embedded in the paper. The thread runs vertically up one side of the note with the words “USA TWENTY” and a small American flag visible along the thread from both sides of the note. The thread glows red under ultraviolet light. The ink used on all U.S. paper money has magnetic properties – the notes will be attracted to a strong magnet.

Another retained security feature is a translucent watermark (faint portrait image) embedded in the paper. The image is similar to the large portrait of President Andrew Jackson on the face of the note. The image can be seen on the front right side of the note and on the back left side of the note when held up to the light. Also, tiny red and blue embedded fibers can be seen through

a microscope or hand lens, and the paper used in the note will not fluoresce (unlike normal wood pulp paper).

*Website Resources for Part A:*

- U.S. Bureau of Engraving, site titled “The Color of Money,” accessible at <http://www.moneyfactory.com/newmoney/>
- Public Broadcasting Service, site titled “Secrets of Making Money,” accessible at <http://www.pbs.org/wgbh/nova/moolah>

**Answer Outline for Part B:**

A variety of opinions are possible here. At least some mention should be made of the fact that e-money (digital cash) surely has its own security concerns.

For example, “identity theft” is a growing problem; theft of identity codes or other access protection devices through computer hacking might permit people to attain access to other people’s e-money accounts. An even more prosaic security concern arises. Suppose you are carrying a digital cash account on your computer hard drive and your hard drive crashes. What is your recourse? How do you re-establish your account? In addition, national security concerns can be raised. From the point of view of a government trying to collect income taxes, will digital cash make tax collection harder or easier?

*Website Resources for Part B:*

- Public Broadcasting Service, article titled *Digital Cash* linked at the “History of Money” site, linked to the main page of “Secrets of Making Money” accessible at <http://www.pbs.org/wgbh/nova/moolah>