EXHIBIT A.2

Input/Output with Free Trade

	Country A	Country B	Total
I. Units of input (000,000)			
Food	20	50	
Textiles	40	10	
II. Output per unit of input (lbs. or yards)			
Food	5	15	
Textiles	3	4	
III. Total output (lbs. or yards) (000,000)			
Food	100	750	850
Textiles	120	40	160
IV. Consumption (lbs. or yards) (000,000)			
Food	225	625	850
Textiles	70	90	160

is relatively more efficient in producing textiles and Country B is relatively more efficient in producing food. That is, Country A's (B's) opportunity cost for producing textiles (food) is less than Country B's (A's). A *relative efficiency* that shows up via a lower opportunity cost is referred to as a comparative advantage.

Exhibit A.2 shows that when there are no restrictions or impediments to free trade, such as import quotas, import tariffs, or costly transportation, the economic well-being of the citizens of both countries is enhanced through trade. Exhibit A.2 shows that Country A has shifted 20,000,000 units from the production of food to the production of textiles where it has a comparative advantage and that Country B has shifted 10,000,000 units from the production of textiles to the production of food where it has a comparative advantage. Total output is now 850,000,000 pounds of food and 160,000,000 yards of textiles. Suppose that Country A and Country B agree on a price of 2.50 pounds of food for one yard of textiles, and that Country A sells Country B 50,000,000 yards of textiles for 125,000,000 pounds of food. With free trade, Exhibit A.2 makes it clear that the citizens of each country have increased their consumption of food by 25,000,000 pounds and textiles by 10,000,000 yards.

PROBLEMS

1. Country C can produce seven pounds of food or four yards of textiles per unit of input. Compute the opportunity cost of producing food instead of textiles. Similarly, compute the opportunity cost of producing textiles instead of food.
2. Consider the no-trade input/output situation presented in the following table for countries X and Y. Assuming that free trade is allowed, develop a scenario that will benefit the citizens of both countries.

Input/Output without Trade

	Country X	Country Y	Total
I. Units of input (000,000)			
Food	70	60	
Textiles	40	30	
II. Output per unit of input (lbs. or yards)			
Food	17	5	
Textiles	5	2	
III. Total output (lbs. or yards) (000,000)			
Food	1,190	300	1,490
Textiles	200	60	260
IV. Consumption (lbs. or yards) (000,000)			
Food	1,190	300	1,490
Textiles	200	60	260

7. On January 1, 1999, 11 European countries, including France and Germany, adopted a common currency called the euro. Greece adopted the euro in 2001. Subsequently, five other countries—Cyprus, Malta, Slovakia, Slovenia, and Estonia—adopted the euro. The advent of a single European currency, which may eventually rival the U.S. dollar as a global vehicle currency, will have major implications for the European as well as world economy. Euro zone countries will benefit from reduced transaction costs and the elimination of exchange rate uncertainty. The advent of the euro will also help develop continentwide capital markets where companies can raise capital at favorable rates.
8. Under the European Monetary Union (EMU), the common monetary policy for the euro zone countries is formulated by the European Central Bank (ECB) located in Frankfurt. The ECB is legally mandated to maintain price stability in Europe. Together with the ECB, the national central banks of the euro zone countries form the Eurosystem, which is responsible for defining and implementing the common monetary policy for the EMU.
9. While the core EMU members, including France and Germany, apparently prefer the fixed exchange rate regime, other major countries such as the United States and Japan are willing to live with flexible exchange rates. Under the flexible exchange rate regime, governments can retain policy independence because the external balance will be achieved by the exchange rate adjustments rather than by policy intervention. Exchange rate uncertainty, however, can potentially hamper international trade and investment. The choice between the alternative exchange rate regimes is likely to involve a trade-off between national policy autonomy and international economic integration.

KEY WORDS

bimetallism, *28*
Bretton Woods system, *31*
currency board, *36*
euro, *27*
European Central Bank (ECB), *43*
European Currency Unit (ECU), *41*
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international monetary system, *27*
Jamaica Agreement, *34*
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Smithsonian Agreement, *34*
snake, *41*
special drawing rights (SDRs), *32*
sterilization of gold, *30*
"Tobin tax," *54*
Triffin paradox, *32*

QUESTIONS

1. Explain Gresham's law.
2. Explain the mechanism that restores the balance-of-payments equilibrium when it is disturbed under the gold standard.
3. Suppose that the pound is pegged to gold at 6 pounds per ounce, whereas the franc is pegged to gold at 12 francs per ounce. This, of course, implies that the equilibrium exchange rate should be two francs per pound. If the current market exchange rate is 2.2 francs per pound, how would you take advantage of this situation? What would be the effect of shipping costs?
4. Discuss the advantages and disadvantages of the gold standard.
5. What were the main objectives of the Bretton Woods system?

6. Comment on the proposition that the Bretton Woods system was programmed to an eventual demise.
7. Explain how special drawing rights (SDRs) are constructed. Also, discuss the circumstances under which the SDRs were created.
8. Explain the arrangements and workings of the European Monetary System (EMS).
9. There are arguments for and against the alternative exchange rate regimes.
   a. List the advantages of the flexible exchange rate regime.
   b. Criticize the flexible exchange rate regime from the viewpoint of the proponents of the fixed exchange rate regime.
   c. Rebut the above criticism from the viewpoint of the proponents of the flexible exchange rate regime.
10. In an integrated world financial market, a financial crisis in a country can be quickly transmitted to other countries, causing a global crisis. What kind of measures would you propose to prevent the recurrence of an Asia-type crisis?
11. Discuss the criteria for a "good" international monetary system.
12. Once capital markets are integrated, it is difficult for a country to maintain a fixed exchange rate. Explain why this may be so.
13. Assess the possibility for the euro to become another global currency rivaling the U.S. dollar. If the euro really becomes a global currency, what impact will it have on the U.S. dollar and the world economy?

INTERNET EXERCISES

1. Using the data from http://federalreserve.gov/releases/h10/hist, first plot the monthly exchange rate between the euro and the U.S. dollar since January 2000, and try to explain why the exchange rate behaved the way it did.

MINI CASE

Will the United Kingdom Join the Euro Club?

When the euro was introduced in January 1999, the United Kingdom was conspicuously absent from the list of European countries adopting the common currency. Although the previous Labour government led by Prime Minister Tony Blair appeared to be in favor of joining the euro club, the current Tory goverment is not in favor of adopting the euro and thus giving up monetary sovereignty of the country. Public opinion is also divided on the issue.

Whether the United Kingdom will eventually join the euro club is a matter of considerable importance for the future of the European Union as well as that of the United Kingdom. If the United Kingdom, with its sophisticated finance industry, joins, it will most certainly propel the euro into a global currency status rivaling the U.S. dollar. The United Kingdom for its part will firmly join the process of economic and political unionization of Europe, abandoning its traditional balancing role.

Investigate the political, economic, and historical situations surrounding British participation in the European economic and monetary integration and write your own assessment of the prospect of Britain joining the euro club. In doing so, assess from the British perspective, among other things, (i) potential benefits and costs of adopting the euro, (ii) economic and political constraints facing the country, and (iii) the potential impact of British adoption of the euro on the international financial system, including the role of the U.S. dollar.

11. Exhibit 3.6 indicates that in 1999, Germany had a current account deficit and at the same time a capital account deficit. Explain how this can happen.
12. Explain how each of the following transactions will be classified and recorded in the debit and credit of the U.S. balance of payments:
    a. A Japanese insurance company purchases U.S. Treasury bonds and pays out of its bank account kept in New York City.
    b. A U.S. citizen consumes a meal at a restaurant in Paris and pays with her American Express card.
    c. An Indian immigrant living in Los Angeles sends a check drawn on his LA bank account as a gift to his parents living in Mumbai.
    d. A U.S. computer programmer is hired by a British company for consulting and gets paid from the U.S. bank account maintained by the British company.
13. Construct a balance-of-payments table for Germany for the year 2010 which is comparable in format to Exhibit 3.1, and interpret the numerical data. You may consult *International Financial Statistics* published by IMF or search for useful websites for the data yourself.
14. Discuss the possible strengths and weaknesses of SDRs versus the dollar as the main reserve currency. Do you think the SDR should or could replace the U.S. dollar as the main global reserve currency?

PROBLEMS

1. Examine the following summary of the U.S. balance of payments for 2000 (in $ billion) and fill in the blank entries.

	Credits	Debits
Current Account		
(1) Exports	1,418.64	
(1.1) Merchandise	774.86	
(1.2) Services	290.88	
(1.3) Factor income	352.90	
(2) Imports		−1,809.18
(2.1) Merchandise		
(2.2) Services		−217.07
(2.3) Factor income		−367.68
(3) Unilateral transfer	10.24	−64.39
Balance on current account		
Capital Account		
(4) Direct investment	287.68	−152.44
(5) Portfolio investment	474.59	−124.94
(5.1) Equity securities	193.85	−99.74
(5.2) Debt securities	280.74	−25.20
(6) Other investment	262.64	−303.27
Balance on capital account		
(7) Statistical discrepancies		
Overall balance	0.30	
Official Reserve Account		−0.30

Source: IMF, *International Financial Statistics Yearbook, 2001*.

INTERNET EXERCISES

1. Study the website of the International Monetary Fund (IMF), www.imf.org, and discuss the role of the IMF in dealing with balance-of-payment and currency crises.