Answers to Questions for Chapter 13

(1) At an exchange rate of $1.50 per euro, the price of a bratwurst in terms of hot dogs is 1.875 (7.5/4) hot dogs per bratwurst. After a dollar appreciation to $1.25 per euro, the relative price of a bratwurst falls to 1.56 (6.25/4) hot dogs per bratwurst. Hot dogs have become more expensive relative to bratwurst.

(4) The dollar rates of return are as follows:

a. ($250,000 - $200,000)/$200,000 = 0.25.

b. ($275 - $225)/$225 = 0.22.

c. There are two parts to this return. One is the loss involved due to the appreciation of the dollar; the dollar appreciation is ($1.38 - $1.50)/$1.50 = -0.08. The other part of the return is the interest paid by the London bank on the deposit, 10 percent. (The size of the deposit is immaterial to the calculation of the rate of return.) In terms of dollars, the realized return on the London deposit is thus 2 percent per year.

(9) a. If the Federal Reserve pushed interest rates down, with an unchanged expected future exchange rate, the dollar would depreciate (note that the article uses the term "downward pressure" to mean pressure for the dollar to depreciate). In terms of the analysis developed in this chapter, a move by the Federal Reserve to lower interest rates would be reflected in a movement from R to R' in Figure 13.5, and a depreciation of the exchange rate from E to E^*.

If there is a "soft landing," and the Federal Reserve does not lower interest rates, then this dollar depreciation will not occur. Even if the Federal Reserve does lower interest rates a little, say from R to R'', this may be a smaller decrease then what people initially believed would occur. In this case, the expected future value of the exchange rate will be more appreciated than before, causing the interest-parity curve to shift in from II to $I'I'$ (as shown in Figure 13.6). The shift in the curve reflects the "optimism sparked by the expectation of a soft landing" and this change in expectations means that, with a fall in interest rates from R to R'', the exchange rate depreciates from E to E'', rather than from E to E^*, which would occur in the absence of a change in expectations.

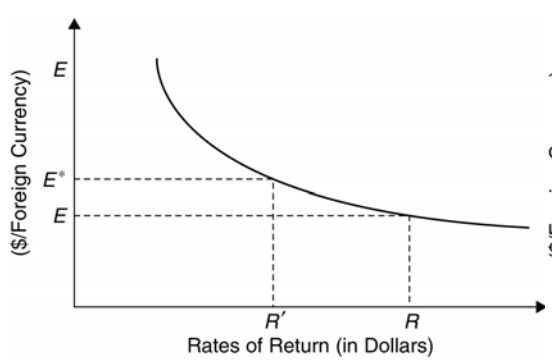

Figure 13.5

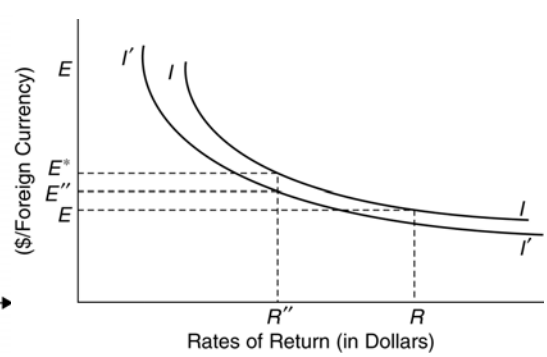

Figure 13.6

b. The “disruptive” effects of a recession make dollar holdings more risky. Risky assets must offer some extra compensation such that people willingly hold them as opposed to other, less risky assets. This extra compensation may be in the form of a bigger expected appreciation of the currency in which the asset is held. Given the expected future value of the exchange rate, a bigger expected appreciation is obtained by a more depreciated exchange rate today. Thus, a recession that is disruptive and makes dollar assets more risky will cause a depreciation of the dollar.

(11) The chapter states that most foreign-exchange transactions between banks (which accounts for the vast majority of foreign-exchange transactions) involve exchanges of foreign currencies for U.S. dollars, even when the ultimate transaction involves the sale of one nondollar currency for another nondollar currency. This central role of the dollar makes it a vehicle currency in international transactions. The reason the dollar serves as a vehicle currency is that it is the most liquid of currencies since it is easy to find people willing to trade foreign currencies for dollars. The greater liquidity of the dollar as compared to, say, the Mexican peso, means that people are more willing to hold the dollar than the peso, and thus, dollar deposits can offer a lower interest rate, for any expected rate of depreciation against a third currency, than peso deposits for the same rate of depreciation against that third currency. As the world capital market becomes increasingly integrated, the liquidity advantages of holding dollar deposits as opposed to euro deposits will probably diminish. The euro represents an economy as large as the United States, so it is possible that it will assume some of that vehicle role of the dollar, reducing the liquidity advantages to as far as zero. When it was first introduced in 1999, the euro had no history as a currency, though, so some investors may have been leery of holding it until it established a track record. As the euro has become more established, though, the liquidity advantage of the dollar should be fading (albeit slowly).

(16) If the dollar depreciated, all else equal, we would expect outsourcing to diminish. If, as the problem states, much of the outsourcing is an attempt to move production to locations that are relatively cheaper, then the U.S. becomes relatively cheap when the dollar depreciates. While it may not be as cheap a destination as some other locations, at the margin, labor costs in the U.S. will have become relatively cheaper, making some firms choose to retain production at home. For example, we could say that the labor costs of producing a computer in Malaysia is 220$ and the extra transport cost is 50$, but the U.S. costs were 300$, then we would expect the firm to outsource. On the other hand, if the dollar depreciated 20% against the Malaysian ringitt, the labor costs in Malaysia would now be 264$ (that is, 20% higher in dollar terms, but unchanged in local currency). This, plus the transport costs makes production in Malaysia more expensive than in the U.S., making outsourcing a less attractive option.