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2. Equation 2 can be written as $CA = (S_p - I) + (T - G)$. Higher U.S. barriers to imports may have little or no impact upon private savings, investment, and the budget deficit. If there were no effect on these variables then the current account would not improve with the imposition of tariffs or quotas. It is possible to tell stories in which the effect on the current account goes either way. For example, investment could rise in industries protected by the tariff, worsening the current account. (Indeed, tariffs are sometimes justified by the alleged need to give ailing industries a chance to modernize their plant and equipment.) On the other hand, investment might fall in industries that face a higher cost of imported intermediate goods as a result of the tariff. In general, permanent and temporary tariffs have different effects. The point of the question is that a prediction of the manner in which policies affect the current account requires a general-equilibrium, macroeconomic analysis.

3. (a) The purchase of the German stock is a debit in the U.S. financial account. There is a corresponding credit in the U.S. financial account when the American pays with a check on his Swiss bank account because his claims on Switzerland fall by the amount of the check. This is a case in which an American trades one foreign asset for another.

   (b) Again, there is a U.S. financial account debit as a result of the purchase of a German stock by an American. The corresponding credit in this case occurs when the German seller deposits the U.S. check in its German bank and that bank lends the money to a German importer (in which case the credit will be in the U.S. current account) or to an individual or corporation that purchases a U.S. asset (in which case the credit will be in the U.S. financial account). Ultimately, there will be some action taken by the bank which results in a credit in the U.S. balance of payments.

   (c) The foreign exchange intervention by the French government involves the sale of a U.S. asset, the dollars it holds in the United States, and thus represents a debit item in the U.S. financial account. The French citizens who buy the dollars may use them to buy American goods, which would be an American current account credit, or an American asset, which would be an American financial account credit.

   (d) Suppose the company issuing the traveler's check uses a checking account in France to make payments. When this company pays the French restaurateur for the meal, its payment represents a debit in the U.S. current account. The company issuing the traveler's check must sell assets (deplete its checking account in France) to make this payment. This reduction in the French assets owned by that company represents a credit in the American financial account.

   (e) There is no credit or debit in either the financial or the current account since there has been no market transaction.

   (f) There is no recording in the U.S. Balance of Payments of this offshore transaction.

6. A current account deficit or surplus is a situation which may be unsustainable in the long run. There are instances in which a deficit may be warranted, for example to borrow today to improve productive capacity in order to have a higher national income tomorrow. But for any period of current account deficit there must be a corresponding period in which spending falls short of income (i.e. a current account surplus) in order to pay the debts incurred to foreigners. In the absence of unusual investment opportunities, the best path for an economy may be one in which consumption, relative to income, is smoothed out over time.

The reserves of foreign currency held by a country's central bank change with nonzero values of its official settlements balance. Central banks use their foreign currency reserves to influence exchange rates. A depletion of foreign reserves may limit the central bank's ability to influence or peg the exchange rate. For some countries (particularly developing countries), central-bank reserves may be important as a way of allowing the economy to maintain consumption or investment when foreign borrowing is difficult. A high level of reserves may also perform a signaling role by convincing potential foreign lenders that the country is credit-worthy. The balance of payments of a reserve-currency center (such as the United States under the Bretton Woods system) raises special issues best postponed until Chapter 18.

9. If both assets and liabilities pay 5%, then the net payments on the net foreign debt would be 1.25%. While not trivial, this is probably not too bad a burden. At 100% net foreign debt to GDP ratio, the net payments are 5%. At this point, the payments may be a substantial drain on the economy.

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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 of 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.

5. Note here that the ordering of the returns of the three assets is the same whether we calculate real or nominal returns.

   (a) The real return on the house would be 25% – 10% = 15%. This return could also be calculated by first finding the portion of the $50,000 nominal increase in the house's price due to inflation ($20,000), then finding the portion of the nominal increase due to real appreciation ($30,000), and finally finding the appropriate real rate of return ($30,000/$200,000 = 0.15).

   (b) Again, subtracting the inflation rate from the nominal return we get 20% – 10% = 10%.

   (c) 2% – 10% = –8%.

6. The current equilibrium exchange rate must equal its expected future level since, with equality of nominal interest rates, there can be no expected increase or decrease in the dollar/pound exchange rate in equilibrium. If the expected exchange rate remains at $1.52 per pound and the pound interest rate rises to 10 percent, then interest parity is satisfied only if the current exchange rate changes such that there is an expected appreciation of the dollar equal to 5 percent. This will occur when the exchange rate rises to $1.60 per pound (a depreciation of the dollar against the pound).

7. If market traders learn that the dollar interest rate will soon fall, they also revise upward their expectation of the dollar's future depreciation in the foreign-exchange market. Given the current exchange rate and interest rates, there is thus a rise in the expected dollar return on euro deposits. The downward-sloping curve in the diagram below shifts to the right and there is an immediate dollar depreciation, as shown in the figure below where a shift in the interest-parity curve from II to I′I′ leads to a depreciation of the dollar from E_0 to E_1.

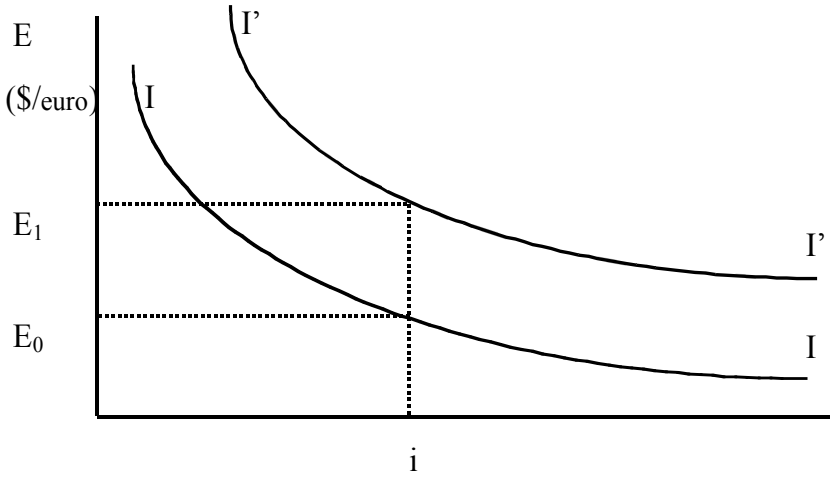

Figure 13.2

8. The analysis will be parallel to that in the text. As shown in the accompanying diagrams, a movement down the vertical axis in the new graph, however, is interpreted as a euro appreciation and dollar depreciation rather than the reverse. Also, the horizontal axis now measures the euro interest rate. Figure 13.3 demonstrates that, given the expected future exchange rate, a rise in the euro interest rate from R_0 to R_1 will lead to a euro appreciation from E_0 to E_1.

   Figure 13.4 shows that, given the euro interest rate of i, the expectation of a stronger euro in the future leads to a leftward shift of the downward-sloping curve from II to I′I′ and a euro appreciation (dollar depreciation) from E to E′. A rise in the dollar interest rate causes the same curve to shift rightward, so the euro depreciates against the dollar. This simply reverses the movement in figure 13.4, with a shift from I′I′ to II, and a depreciation of the euro from E′ to E. All of these results are the same as in the text when using the diagram for the dollar rather than the euro.

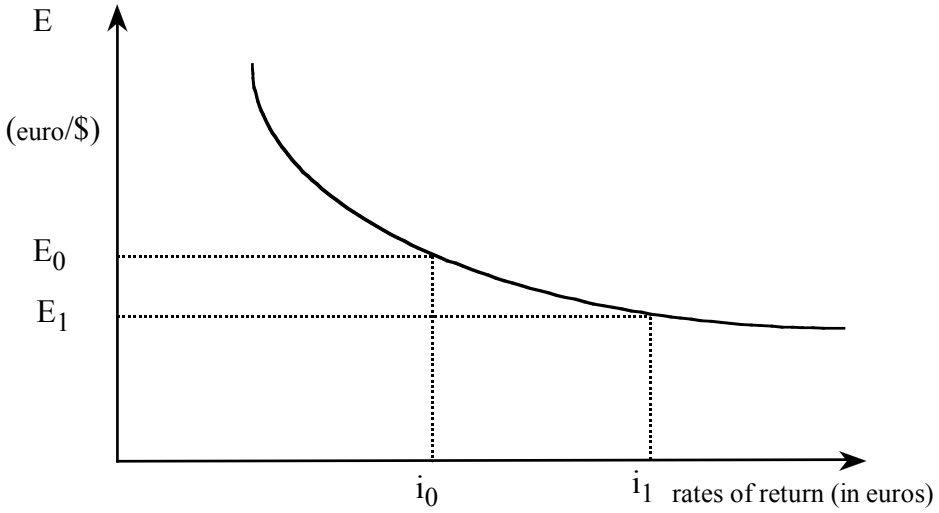

Figure 13.3

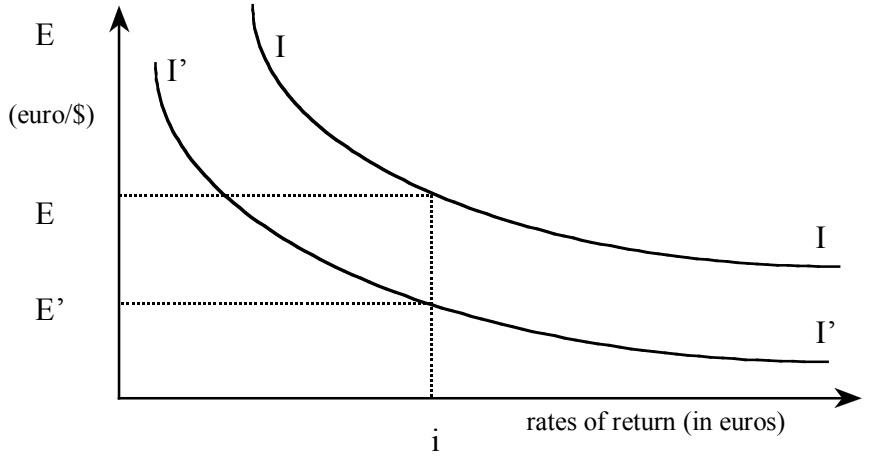

Figure 13.4

14. The forward premium can be calculated as described in the appendix. In this case, we find the forward premium on euro to be (1.26 – 1.20)/1.20 = 0.05. The interest-rate difference between one-year dollar deposits and one-year euro deposits will be 5 percent because the interest difference must equal the forward premium on euro against dollars when covered interest parity holds.

15. The value should have gone down as there is no more need to engage in intra EU foreign currency trading. This represents the predicted transaction cost savings stemming from the euro. At the same time, the importance of the euro as an international currency may have generated more trading in euros as more investors (from central banks to individual investors) choose to hold their funds in euros or denominate transactions in euros. On net, though, we would expect the value of foreign exchange trading in euros to be less than the sum of the previous currencies.

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 US 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 US 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$, but the US costs were 300$, 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 US, making outsourcing a less attractive option.

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2. A fall in a country's population would reduce money demand, all else equal, since a smaller population would undertake fewer transactions and thus demand less money. This effect would probably be more pronounced if the fall in the population were due to a fall in the number of households rather than a fall in the average size of a household since a fall in the average size of households implies a population decline due to fewer children who have a relatively small transactions demand for money compared to adults. The effect on the aggregate money demand function depends upon no change in income commensurate with the change in population—else, the change in income would serve as a proxy for the change in population with no effect on the aggregate money demand function.

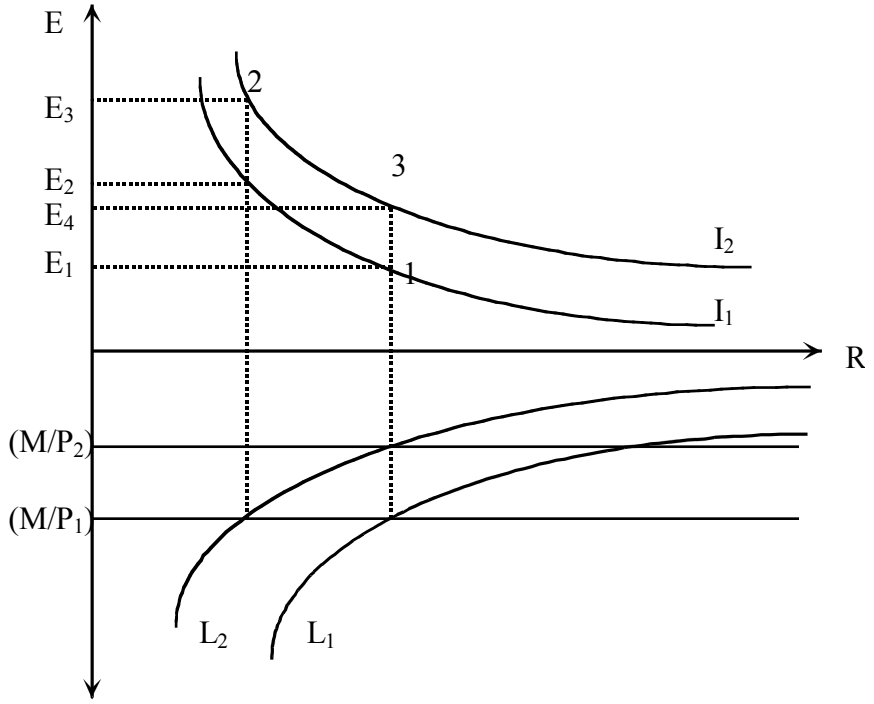

Figure 14.1

4. An increase in domestic real GNP increases the demand for money at any nominal interest rate. This is reflected in figure 14.2 as an outward shift in the money demand function from L_1 to L_2. The effect of this is to raise domestic interest rates from R_1 to R_2 and to cause an appreciation of the domestic currency from E_1 to E_2.

6. Currency reforms are often instituted in conjunction with other policies which attempt to bring down the rate of inflation. There may be a psychological effect of introducing a new currency at the moment of an economic policy regime change, an effect that allows governments to begin with a "clean slate" and makes people reconsider their expectations concerning inflation. Experience shows, however, that such psychological effects cannot make a stabilization plan succeed if it is not backed up by concrete policies to reduce monetary growth.

8. The 1984–1985 money supply growth rate was 12.4 percent in the United States (100% ∗ (641.0 – 570.3)/570.3) and 334.8 percent in Brazil (100% ∗ (106.1 – 24.4)/24.4). The inflation rate in the United States during this period was 3.5 percent and in Brazil the inflation rate was 222.6 percent. The change in real money balances in the United States was approximately 12.4% – 3.5% = 8.9%, while the change in real money balances in Brazil was approximately 334.8% – 222.6% = 112.2%. The small change in the U.S. price level relative to the change in its money supply as compared to Brazil may be due to greater short-run price stickiness in the United States; the change in the price level in the United States represents 28 percent of the change in the money supply ((3.5/12.4) ∗ 100%) while in Brazil this figure is 66 percent ((222.6/334.8) ∗ 100%). There are, however, large differences between the money supply growth and the growth of the price level in both countries, which casts doubt on the hypothesis of money neutrality in the short run for both countries.

10. If an increase in the money supply raises real output in the short run, then the fall in the interest rate will be reduced by an outward shift of the money demand curve caused by the temporarily higher transactions demand for money. In figure 14.3, the increase in the money supply line from (M_1/P) to (M_2/P) is coupled with a shift out in the money demand schedule from L_1 to L_2. The interest rate falls from its initial value of R_1 to R_2, rather than to the lower level R_3, because of the increase in output and the resulting outward shift in the money demand schedule. Because the interest rate does not fall as much when output rises, the exchange rate depreciates by less: from its initial value of E_1 to E_2, rather than to E_3, in the diagram. In both cases we see the exchange rate appreciate back some to E_4 in the long run. The difference is the overshoot is much smaller if there is a temporary increase in Y. Note, the fact that the increase in Y is temporary means that we still move to the same IP curve, as LR prices will still shift the same amount when Y returns to normal and we still have the same size M increase in both cases. A permanent increase in Y would involve a smaller expected price increase and a smaller shift in the IP curve.

    Undershooting occurs if the new short-run exchange rate is initially below its new long-run level. This happens only if the interest rate rises when the money supply rises—that is if GDP goes up so much that R does not fall, but increases. This is unlikely because the reason we tend to think that an increase in M may boost output is because of the effect of lowering interest rates, so we generally don't think that the Y response can be so great as to increase R.