QUESTIONS CHAPTER 20 FOREIGN EXCHANGE MARKETS

Question 20.1
Suppose you want to buy a car. You either want to buy a Chevrolet for US$ 23,000, a Volkswagen for € 15,900, a Honda for ¥ 2.2 million or a Hyundai for 22 million Korean won. The following exchange rates are given.

<table>
<thead>
<tr>
<th></th>
<th>Foreign currency per dollar</th>
<th>Foreign currency per euro</th>
</tr>
</thead>
<tbody>
<tr>
<td>American dollar</td>
<td>1.0</td>
<td>1.3</td>
</tr>
<tr>
<td>European euro</td>
<td>0.8</td>
<td>1.0</td>
</tr>
<tr>
<td>Japanese yen</td>
<td>106.0</td>
<td>135.9</td>
</tr>
<tr>
<td>Korean won</td>
<td>1120.9</td>
<td>1437.1</td>
</tr>
</tbody>
</table>

20.1A Which car is cheapest when all prices are expressed in American dollars?
20.1B Do relative prices change when expressed in European euros? Explain why this is the case.
20.1C Which currency has to appreciate for the cheapest car to become more expensive?
20.1D Which currencies have to depreciate for the cheapest car to become more expensive?

Question 20.2
Imagine you have € 100,000 and want to invest it in the foreign exchange market. After an extensive analysis you conclude what the exchange rates will be one year ahead. The table below gives both the spot exchange rate of the amount of foreign currency per euro and the expected exchange rate in one year.

<table>
<thead>
<tr>
<th></th>
<th>Spot rate</th>
<th>Expected future rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian dollar</td>
<td>1.71</td>
<td>1.77</td>
</tr>
<tr>
<td>British pound</td>
<td>0.69</td>
<td>0.72</td>
</tr>
<tr>
<td>Japanese yen</td>
<td>135.2</td>
<td>130.0</td>
</tr>
<tr>
<td>US dollar</td>
<td>1.27</td>
<td>1.24</td>
</tr>
</tbody>
</table>

20.2A Explain in which currency you want to invest.
20.2B How much euro do you expect to have in one year?
Question 20.3

Since June 2002 the value of the euro has increased rapidly against the dollar. The figures below show that the nominal effective exchange rate of the dollar has decreased during the same period.

20.3A Is an appreciation of the euro favorable for the competitiveness of American exporters?

20.3B What does the decrease of the nominal exchange rate of the dollar indicate about the competitiveness of the American industry?

Sources: based on data from IFS and Federal reserve.
20.3C Do your observations of 20.3A and 20.3B contradict each other? How can you explain these observations?


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Question 20.4
Suppose you own a car assembly line in Mexico. The different parts of the car are imported from the United States and the assembled cars are exported back to the United States.

20.4A What happens to the price of the imports when the Mexican pesos depreciates?

20.4B Does your car become more or less attractive for American consumers when the Mexican pesos depreciates? Explain.

20.4C As a Mexican producer, do you think the depreciation of the Mexican pesos is a good thing?

Question 20.5
Imagine you have a really nice holiday. You just visited the pyramids in Egypt and you are now at Cairo airport waiting for the plane that will bring you to Madagascar. You still have 500 Egyptian pounds left however and want to exchange it to Madagascar franc. On a website you have seen that the exchange rate of the Egyptian pound is 6.25 per dollar and the Madagascar franc is 6201 per dollar.

20.5A Based on the internet information, how much Madagascar franc do you expect to get for you 500 Egyptian pound?

20.5B Money-exchangers at the airport offer at best an exchange rate of 995 franc per pound. Should you be surprised? Explain.

20.5C Do you expect it is worthwhile to first exchange your Egyptian pounds to dollars or euros and afterwards exchange the dollars or euros to Madagascar francs?

Question 20.6
There are different financial instruments to hedge the exchange rate risk. The main text mentions three financial instruments: forwards, swaps and options. Explain what these instruments entail and which of them is most fit to secure that at a specific time a certain amount of foreign currency can be exchanged to local currency against a predetermined exchange rate.
**Question 20.7**
On Monday the 1st of November 2004 the dollar/euro exchange rate was 1.2748 and the dollar/euro 12 months forward exchange rate was 1.2717.
20.7A Calculate the annual forward premium of the euro and the dollar.
20.7B Explain whether the forward premium indicates that investors expect the euro to appreciate or depreciate in the future.
20.7C If you expect that the euro will appreciate in the future, should you buy or sell a forward euro contract?

**Question 20.8**
In the main text three different kinds of exchange rates were discussed: the spot exchange rate, the forward exchange rate and the nominal effective exchange rate. The importance of these exchange rates differs according to the profession of people. Explain which exchange rate(s) are most important for the following people: a currency trader on the Forex market, a stock trader on the London stock exchange, a salesperson of an exporting company, a policy advisor on trade and industry.

**Question 20.9**
In the press you can find different views on the development of the exchange rate. Some people regard an appreciation of the national currency as a sign that the national economy is strong and healthy. Others point to the fact that the appreciation hurts the competitiveness of the economy. Search and download from the internet a daily or monthly time series of your country’s currency against the currency of the major trading partner of your country from January 2000 onwards (see for example the Pacific Exchange Rate Service at http://fx.sauder.ubc.ca/ or the Federal Reserve at http://www.federalreserve.org). Explain whether you are happy or disappointed about the development of the exchange rate.

**Question 20.10**
The spread between the bid and ask spot rate is for currency traders, trading large amounts of money, quite thin. The spreads you face when dealing with the local bank are probably less favorable. Try to find an extensive list of bid and ask rates for different currencies of one of
your local banks. Use alternatively the data file of question 20.10 which provides a list of our local bank, a Dutch bank specialized in exchanging money. Calculate the spread between the bid and ask spot rate of the different currencies. Which currencies have a relatively small spread and which a large spread? Why do the spreads between the different currencies differ?

**Question 20.11**
The forward exchange rate represents the expected future exchange rate of the financial markets plus a premium for the exchange rate risk. In this exercise we will evaluate how well the forward exchange rate predicts the future Japanese yen/US dollar exchange rate. For that purpose the data file of question 20.11 contains the daily spot exchange rates and four forward exchange rates of the yen against the dollar from January 1995 until October 2004.

20.11A Was the Japanese yen during the 1995-2004 period sold at a discount or de premium? Did the financial markets expect the yen to appreciate or depreciate?

20.11B How well does the forward rate correlate with the future spot rate? Show some revealing graphs or statistics to support your view.

**Question 20.12**
The article “China’s foreign exchange black market and exchange flight: an analysis of exchange rate policy” by J. Ding gives an elaborate overview of the Chinese black market. This article by Ding is published in The Development Economies, which is freely available on the web. Try to find this article and answer the questions (alternatively one of the students could prepare a presentation about the Chinese black exchange market).

20.12A Why did the black market rate of the Chinese renminbi differ from the official rate?

20.12B How is foreign currency supplied on the black market?

20.12C Who demands foreign currency on the Chinese black market?

20.12D Why did the difference between the two rates spike in 1988/1989 and again in 1993?