Exercise Handbook

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Università Cattaneo

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Exercise I

Fill in the cross rates in the table below:

	A	B	C	D	E
A	—	5.2			
B		—			
C			—		9.5
D			6	—	
E	4.5				—

Exercise II

Fill in the cross rates in the table below:

	A	B	C	D	E
A	—	4.5			
B		—		2	
C	3.05		—		
D				—	5
E					—

Exercise III

Given the following bid-ask quote:

	Bid	**Ask**
$\frac{A}{B}$	220	240

At what exchange rate will:

- Mr. Smith purchase A?
- Mr. Brown sell A?
- Mrs. Green purchase B?
- Mrs. Jones sell B?

Exercise IV

Consider the following bid-ask quotes:

	Bid	Ask
$\frac{A}{B}$	1.35	1.37
$\frac{A}{C}$	0.71	0.76

Please find the $\frac{B}{C}$ bid-ask quote (**intermediate computations**).
Now suppose that another market maker publishes the following quotes for the $\frac{B}{C}$ rate:

	Bid	Ask
$\frac{B}{C}$	0.575	0.579

Would there be arbitrage opportunities? If so, how would you exploit them (assuming you have 100B at your disposal)?

Exercise V

Fill in the table below (please, **show all the relevant computations**):

	Bid	**Ask**
$\frac{CZJ}{GBP}$	35.10	35.17
$\frac{DKK}{GBP}$	9.004	9.009
$\frac{EUR}{GBP}$	1.2066	1.2069
$\frac{NOK}{GBP}$	12.1526	12.153
$\frac{DKK}{EUR}$		
$\frac{EUR}{NOK}$		
$\frac{GBP}{CZJ}$		

Once you have filled in the table above, answer the questions below:

- Find the bid-ask spread for the $\frac{EUR}{GBP}$ quote.
- How much would you lose if you converted 1500 NOK into CZJ, then into EUR and finally back into NOK?

Exercise VI

True or false? **Please, explain**.

- If a country has a BOP deficit, the total of each BOP sub-account is negative.
- The current account is a record of all trade in goods and services, while the capital account is a record of portfolio investment and unilateral transfers.
- Under a fixed exchange rate regime, if a country's private sector sells abroad more than it purchases, the central bank must sell foreign exchange.
- All errors and omissions in the BOP are a result of black market transactions

Exercise VII

Multiple choice. **Please, explain**.
Assume **H** = home country, **DC** = domestic currency, **F** = foreign country and **FC** = foreign currency.
All else being equal, an increase in income in F leads to:

1. an increase in consumption in H, and therefore an increase in imports, resulting in an appreciation of the DC.
2. a decrease in consumption in H, and therefore an increase in exports, resulting in a depreciation of the DC.
3. an increase in consumption in F, and therefore an increase in imports, resulting in an appreciation of the DC.
4. an increase in consumption in F, and therefore an increase in imports, resulting in a depreciation of the DC.

Exercise VIII

Multiple choice. **Please, explain**.
Assume **H** = home country, **DC** = domestic currency, **F** = foreign country and **FC** = foreign currency.
All else being equal, a decrease in prices in F leads to:

1. an increase in exports to H, and therefore an appreciation of the DC.
2. an increase in exports to H, and therefore a depreciation of the DC.
3. an increase in consumption in F, and therefore an increase in imports, resulting in an appreciation of the DC.
4. a decrease in consumption in F, and therefore a decrease in imports, resulting in a depreciation of the DC.