Universität Siegen

Fakultät III – Wirtschaftswissenschaften

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Exam “International Financial Markets”
Summer Semester 2018
(2nd Exam Period)

Solution

Available time: 45 minutes

For your attention:

1. Please do **not** directly write your answers into this problem set. Use the set of solution pages.
2. Please do **not** use a **pencil**.
3. Additional materials you may use for the exam: a non-programmable calculator.
4. ATTENTION: The names for variables have the same meaning as in the lecture. Insofar as you also use the same symbols for the variables as we did in the lecture you will not have to define these any further.

Question	1	2	3	4	Sum	Mark
Points achievable	10	14	14.5	6.5	45	
Points achieved						

Problem 1: Financial Transactions and Financial Markets

a) There are several ways to characterize a surplus unit.

a_1 Using two of the following criteria, please describe <u>two</u> features of a surplus unit from the perspective of <u>goods</u> markets. [4 points]

- Name of the balance in the unit's capital account:

- Amount of expenditure compared to amount of income:

- Amount of saving compared to amount of investment in real capital:

Solution:

- Name of the balance in the unit's capital account: net lending (2)
- Amount of expenditure compared to amount of income:

  expenditure lower than income (or: negative) (2)
- Amount of saving compared to amount of investment in real capital:

  Saving exceeds real investment (or: positive) (2)

ATTENTION: maximum 4 points!

a_2 Using one of the following criteria, please describe <u>one</u> feature of a surplus unit from the perspective of <u>financial</u> markets. [2 points]

- Sum of purchases of financial assets compared to sum of sales of financial assets:
- Change of net financial worth due to transactions:

Solution:

- Sum of purchases of financial assets compared to sum of sales of financial assets: positive (2)
- Change of net financial worth due to transactions: positive (2)

ATTENTION: maximum 2 points!

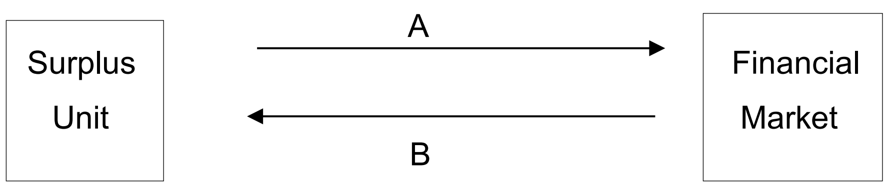
b) The following graph indicates the typical financial transaction of a surplus unit. Please say what the arrows represent in terms of income (purchasing power) and in terms of financial assets. [4 points]

Arrow A:

- Income/purchasing power:
- Financial assets:

Arrow B:

- Income/purchasing power:
- Financial assets:



Solution:

Arrow A:

- Income/purchasing power: current (or: immediate) (1)
- Financial assets: money (1)

Arrow B:

- Income/purchasing power: future (1)
- Financial assets: non-monetary (1)

Problem 2: Integration of Financial Markets

a) National financial markets are separated from each other by various types of barriers. Please name <u>two</u> of these types of barriers and give one example for each of them. [5 points]

Solution:

- Natural barriers: language, distance, …
  (1) (1.5)

- State-created barriers: laws, capital controls, …
  (1) (1.5)

- Barriers created by national market participants: (1)
  cartels, restrictions of access to financial infrastructure (1.5)

ATTENTION: maximum 5 points!

b) Please give a definition of an integrated financial market. [3 points]

Solution: access to market is independent of country of origin
(1) (1) (1)

Or: absence of frictions that discriminate between agents on the basis of their country of origin

c) Please name and briefly explain <u>one</u> effect of financial integration on growth. [6 points]

Solution:

- Re-allocation of capital: (2)
  capital moves (2)
  to countries with high capital productivity (or: interest rates) (2)

  (or: productivity of capital has increased (4))

- Increase of supply of capital: (2)
  increased return to capital (2)
  will stimulate its supply (2)

- Financial development: (2)
  increased competition of financial intermediaries (or: regulators) (2)
  will improve performance of financial sector; (1)
  that, in turn, will foster economic growth (1)

ATTENTION: maximum 6 points!

Problem 3: Price Relations Between International Financial Markets

We look at the following relations which include the foreign interest rates (i^f , r^f), the domestic interest rates (i , r), goods prices (P, P^f) and the spot exchange rate (e); the symbol e in the power of brackets $(\ )^e$ denotes expected variables:

(I) $$r^f = i^f - \left(\frac{d\,P^f}{P^f}\right)^e$$

(II) $$r = i - \left(\frac{dP}{P}\right)^e$$

(III) $$i = \left[i^f + \left(\frac{de}{e}\right)^e\right]$$

(IV) $$\left(\frac{de}{e}\right)^e = \left(\frac{dP}{P}\right)^e - \left(\frac{d\,P^f}{P^f}\right)^e$$

a) Please briefly interpret the economic content of these relations. (It is sufficient to give the names of the equations.) [7.5 points]

(I)

(II)

(III)

(IV)

Solution:

(I) real interest rate abroad (or: Fisher abroad)
(1) (0.5)

(II) domestic real interest rate (or: domestic Fisher)
(0.5) (1)

(III) uncovered interest rate parity
(1) (0.5) (1)

(IV) expected relative PPP
(0.5) (0.5) (1)

b) What is the implication if all equations (I) – (IV) hold? [3 points]

Solution:

real interest rate parity (or: Fisher open; or: $r = r^f$)
(1) (1) (1)

c) Suppose that international investors are not risk neutral but risk averse. They claim a positive risk premium (RIS > 0) for risky assets.

c_1 Which of the above equations (I) – (IV) would have to be modified? [2 points]

Solution: (III)
(2)

c_2 Please re-write that equation with the appropriate modification. [2 points]

Solution:

$$i = \left[i^f + \left(\frac{de}{e} \right)^e \right] - RIS$$

(1) (1)

Problem 4: Reference Rates

Please give a general description of a reference rate by referring to its purposes and characteristics. [6.5 points]

Solution:

- basis (or: reference) for rates of debt instruments
  (1) (0.5) (1)
- reflect general market conditions (2)
- rate the best borrower has to pay (2)
- be established in the most liquid market segment (2)

ATTENTION: maximum 6.5 points