

**Gesamtprüfung**  
**Financial Management**  
Prof. Dr. Klaus Schredelseker**09/2012**  
**September 2012**

N° 1	N° 2	N° 3	N° 4	N° 5	N° 6	N° 7	Total	Note
5	5	5	5	5	5	5	max. 40	PS:

Name:

Studienkennzahl:

Matrikel:

**Die Bearbeitung kann in Deutsch oder in Englisch erfolgen!**

- 1) Nature flips a coin. Then A decides for heads or tails, and finally B (who has observed A's choice) decides for heads or tails. If A and B made identical choices, both get 2 Euro (no matter if their choices correspond to the result of the coin flip). If their choices differ, the one whose choice complies with the coin flip gets 10 Euro, the other one nothing. A and B are not allowed to communicate.
- a) What is the expected gain for A and B, if both players do not know the result of the coin flip, and B knows that A is uninformed?
- b) What is the expected gain for A and B, if A gets private information on the result of the coin flip, and B knows that A is informed?

2) Explain in the context of the coin model why the level of market efficiency may increase if some investors switch from a fundamental to a passive investment strategy?

3) An Italian who holds US-Dollars faces a currency risk. What is the risk premium in this context, and who pays it?

4) There are three stocks A, B, and C:

$$\begin{aligned} \mu_A=8\% \quad \mu_B=10\% \quad \mu_C=16\% \quad \sigma_A=9\% \quad \sigma_B=12\% \quad \sigma_C=25\% \\ \rho_{AB}=0,4 \quad \rho_{AC}=0,2 \quad \rho_{BC}=0,0 \quad r_F=2\%. \end{aligned}$$

- a) Calculate the risk in a portfolio of ABC (A:B:C=2:2:1)
- b) You have 30.000€ and you take a loan of 20.000€ to invest 50.000€ in a portfolio of ABC (A:B:C=2:2:1). What is your expected return?
- c) You go with 2000€ short in A, with 4000€ long in B and with 2000€ long in C. What is the expected return of your portfolio?

5) Discuss how capital gains (increases of share prices that investors expect) are considered by Gordon's Formula?

6) Explain why a low-skilled financial analyst may perform systematically better than a high-skilled financial analyst.

## 7) Multiple Choice

For each correct answer you receive 1 point, for each incorrect answer 1 point is deducted. If a question is not answered, no points are assigned. Please do only answer questions when you are sure. The total number of points from the multiple choice questions cannot fall below 0. Comments will be ignored.

How to tick a box in the multiple choice section:

tick a box



untick a box



tick a box (again)



	true	false
The investment in a firm which follows the maxim of shareholder value maximization yields on average a higher return than in a firm which does not.	0	0
If interest rates on debit differ from interest rates on credit the Fisher separation model does not anymore hold.	0	0
A message is a signal if it is more expensive for a low quality firm to send it than for a high quality firm.	0	0
Credit rationing is a consequence of adverse selection.	0	0
Inside trading improves semi-strong-form market efficiency.	0	0
For a portfolio P of stocks A, B, and C (equally weighted) holds: $\beta_P = (\beta_A + \beta_B + \beta_C)/3$ .	0	0
If stock prices follow a random walk the market is called semi-strong-form efficient.	0	0
A submartingale process has so-called "fat tails".	0	0
One of the factors in the APT is the market risk premium.	0	0
The higher a security's beta, the steeper is its characteristic line.	0	0

