

Fachprüfung (BA, Wipäd, IWW)

Financial Management

Dr. Florian Hauser

04/2012**18. April 2012**

N° 1	N° 2	N° 3	N° 4	N° 5	N° 6		Total	Note
6	8	6	5	5	10		max. 40	PS:

Name:

Studienkennzahl:

Matrikel:

Die Bearbeitung kann in Deutsch oder in Englisch erfolgen!

- 1) An exchange-traded firm is unlevered at the moment. To finance new substantial business opportunities, the firm decides to issue bonds.
 - a) Discuss the consequences of this decision for investors in the context of the Modigliani-Miller model and the Tradeoff Theory.
 - b) Which alternative sources of fresh capital should be preferred according to the Pecking-Order hypothesis? Explain why they should be preferred.

- 2) The market is in equilibrium. Microsoft has a beta of 1.00 and volatility of returns is 1.5%. Apple has a beta of 1.25 and volatility of returns is 1.65%. The correlation between market (S&P 500) and Apple's returns is 0.66. The risk-free rate is 1.5% and the equity premium (risk premium of the market) is 6%.
- a) Take a credit of 500€ and invest 1000€ in Apple. What is the expected return of this portfolio?
 - b) Calculate the standard deviation of S&P 500. (Note: this one is challenging – don't hesitate to start with c) if you are stuck.)
 - c) Use the S&P500 index and Apple stocks to construct a portfolio with a beta of 1.4. What is the composition of this portfolio? What is the systematic risk of this portfolio? (Note: Assume $\sigma_{S\&P}$ to be 0.5% if you failed at b)).
 - d) Microsoft is expected to pay a dividend of 0.8€ next year, and the current market price is 32€. Calculate the implied growth rate of dividends with Gordon's formula.

- 3) Ten fundamental traders ($T_0 \dots T_9$) trade a security; the fair (fundamental) value of this security is the sum of ten Laplace coins (taking a value of either 0 or 1). Each trader T_x observes the first x coins and is bound to trade (long or short) one share of the security. The given sequence of the coins is: 1111010000.
- a) What is the market price of the security in a call auction if all traders use a fundamental strategy?
 - b) Calculate profits and losses for the ten traders (based on the fundamental value).
 - c) Now the values of the first four coins become public knowledge. Calculate the new market price and show who is able to profit from the public information.

4) Explain two arguments pro and two arguments contra allowing insider trading.

5) Briefly explain three different forms of the equity premium and how they can be derived or calculated.

6) Multiple Choice. (Be cautious: if your answer is wrong you get a negative point!)

	True	False
Market efficiency can increase if the level of public information increases (c.p.)	<input type="radio"/>	<input type="radio"/>
Market efficiency can increase if the level of public information decreases (c.p.)	<input type="radio"/>	<input type="radio"/>
If stock A is dominated by stock B ($\mu_A < \mu_B$; $\sigma_A > \sigma_B$), stock A cannot be part of an efficient portfolio.	<input type="radio"/>	<input type="radio"/>
Very high dividend-payout ratios (>>100%) of some firms in the last five years may be a result of the financial crisis.	<input type="radio"/>	<input type="radio"/>
If there is a stable, non-linear relationship between expected stock returns and Beta, arbitrage opportunities arise.	<input type="radio"/>	<input type="radio"/>
Diversification in the real assets portfolio of a firm will increase shareholder value.	<input type="radio"/>	<input type="radio"/>
The security market line consists only of efficient portfolios.	<input type="radio"/>	<input type="radio"/>
Extreme events for the Dow Jones Industrial Average Index (very high absolute daily returns) are clustered in certain years.	<input type="radio"/>	<input type="radio"/>
If all traders assume the market to be efficient, the market is likely to be inefficient.	<input type="radio"/>	<input type="radio"/>
The “market for lemons” is used to illustrate agency problems.	<input type="radio"/>	<input type="radio"/>

Zusatzstunde:

In the Hauser/Kaempff (2011) paper, the authors build an agent-based model of a financial market.

- a) Discuss the main results of the paper.
- b) What similarities do you find in the Huber/Kirchler/Sutter (2008) and the Hauser/Kaempff (2011) paper?