University of Innsbruck, Department of Banking and Finance, Dr. Florian Hauser

Fachprüfung Financial Management 06/2016

Q1	Q2	Q3	Q4	Q5	Q6	Sum	Grade
6	6	6	6	6	10	max. 40	PS:

....

Name Matrikel Studienkennzahl

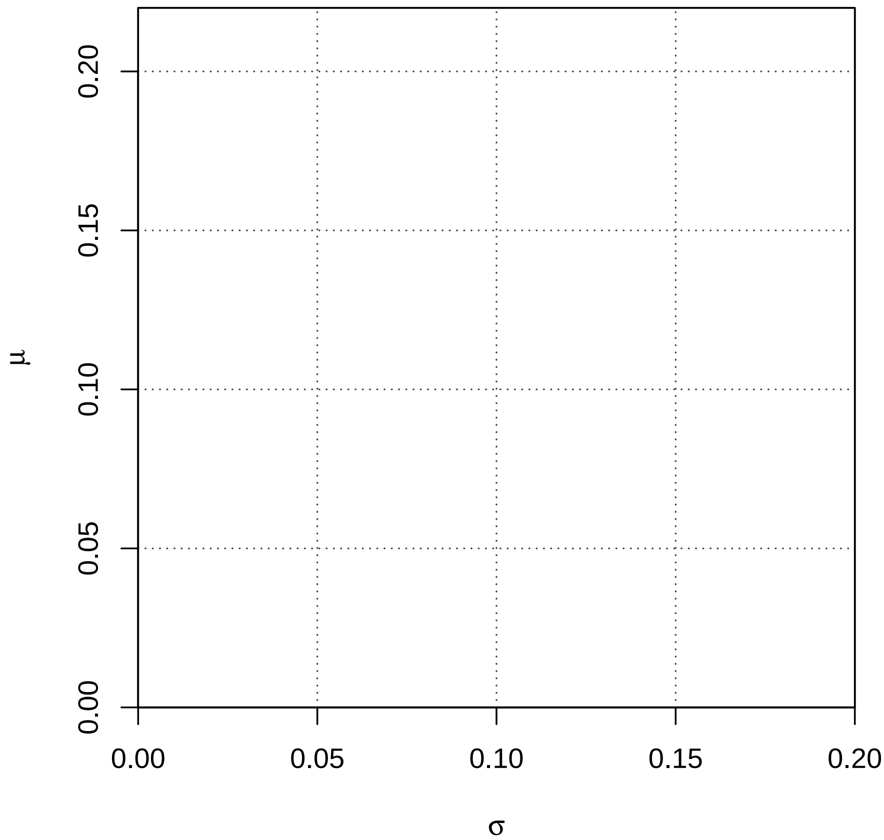
You can answer in English and German language!

Question 1: Systematic risk

Explain why systematic risk is immune to diversification.

Question 2: Portfolio theory

There are two stocks: A ($\mu_A = 0.06, \sigma_A = 0.14$) and B ($\mu_B = 0.15, \sigma_B = 0.12$). Correlation is $\rho_{AB} = -0.2$. Further, there is a risk-free asset with a return of 0.02.



a) Draw all feasible portfolios that result from long positions in A and B in the above graph **as precisely as possible**.
b) Draw all efficient portfolios in the above graph **as precisely as possible**.
c) You take a credit of 240 Euro at the risk-free rate, and invest 400 Euro in A, and 240 Euro in B. Indicate the position of the resulting portfolio (including the credit) in the above graph **as precisely as possible**.

Question 3: Efficient markets

Malkiel and Jensen did extensive analyses on the performance of mutual funds. Discuss the main findings and, more important, discuss what the findings mean in context of the efficient markets hypothesis.

Question 4: Modigliani-Miller

Spam Corp. is financed entirely by common stock and has a beta of 1.0. The firm is expected to generate a level, perpetual stream of earnings and dividends. The stock has a price-earnings ratio of 8 and a cost of equity of 12.5%. The company's stock is selling for $50. Now the firm decides to repurchase half of its shares and substitute an equal value of debt. The debt is risk-free, with a 5% interest rate. The company is exempt from corporate income taxes. Assuming MM are correct, calculate the following items after the refinancing:

a) The cost of equity.
b) The overall cost of capital (WACC).
c) The price-earnings ratio.
d) The stock price.
e) The stock's beta.

Question 5: Schredelseker-Model

Discuss the core results of the Schredelseker-Model on the private and social value of **public information** (i.e. mandatory disclosure) in financial markets.

Question 6: Multiple Choice

Correct answers will bring 1 point; incorrect answers count -1 point. If a question is not answered, no points are assigned. Even with wrong answers, the total points for the multiple choice questions cannot be below 0. Comments will be ignored.

How to tick / untick multiple choice questions:

☒	☒	☒
tick a box	untick a box	tick a box again

	true	false
In a strong-form efficient market, the expected return on all stocks must be 0.	☐	☐
The assumption that price changes are driven by new information is inconsistent with the random-walk-theory.	☐	☐
The biggest profiteers of insider regulation are the least-informed traders.	☐	☐
A firm with a capital structure of $L = 9$ has a debt-ratio of 90%.	☐	☐
The variance-covariance matrix for 20 assets covers 190 unique covariance terms.	☐	☐
One of the basic assumtions of the Makrovitz model on portfolio theory is that investors are risk-neutral.	☐	☐
In CAPM equilibrium, every available stock must be part of the market portfolio.	☐	☐
In CAPM equilibrium, every available stock must be located on the security market line.	☐	☐
In CAPM equilibrium, every available stock must return at least the equity premium.	☐	☐
In CAPM equilibrium, stock A ($\beta_A = 0.8$) cannot dominate stock B ($\beta_B = 1$).	☐	☐