

EE431 Economics of Financial Markets and Institutions  
 Problem Set 4 : CAPM

Please submit at the BE office, 5th floor department of Economics building.

Deadline of submission : Tuesday 8 November, 2016, before 15.00 hrs.

1. Use the following information to answer all parts. Assume that all assumptions of CAPM hold

Assets	Expected Return (%)	Standard Deviation (%)
Market Portfolio	7	10
Risk-free Asset	1	

- **Market portfolio consists of 0.7 of risky asset X and 0.3 of risky asset Y.**

- (a) What is the value of standard deviation of the risk-free asset? Does the question give you enough information?

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- (b) Suppose Stefan has 200US\$ and he wants 4% rate of return. How much should the investor invest his fund on risk free asset, asset X and asset Y ?

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- (c) What is the standard deviation of the portfolio in quation (b)?

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- (d) Suppose Stefanie has 100US\$ and she wants 10% rate of return. How much should she invest her fund on risk free asset, asset X and asset Y ?

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- (e) What is the standard deviation of the portfolio in quation (d)?

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- (f) Write down CML equation.

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- (g) Indicate Stefan's choice and Stefanie's choice, riskfree asset and market portfolio on CML.  
Grapically illustrate.

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