CML = efficient portfolios for the entire market
SML = Asset specific (i.e. securities) returns and systematic risk relationship

ECON30024
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Tutorial 5 (for Week 6)

1. Review Quiz 5 questions.

2. The following information is provided for a stock market:

	μ_j	σ_j	ρ_{jM}
Asset 1	7%	0.3	0.2
Asset 2	8%	0.2	0.4
Asset 3	10%	0.15	0.8
Market Portfolio	9%	0.1	1

   Notation: μ_j = expected rate of return on asset j; σ_j = standard deviation of the rate of return on asset j; ρ_{jM} = correlation coefficient between the rate of return on asset j and the market portfolio. The risk-free interest rate is 4%.

   (a) Sketch the capital market line.

   (b) Do assets 1-3 lie on the capital market line?

   (c) In the context of the CAPM, obtain the beta-coefficients for each asset. What do these results suggest about the relative riskiness of the assets?

3. The following information is provided for a stock market:

	μ_j	β_j
Asset 1	12%	1.8
Asset 2	7%	0.8
Asset 3	9%	1.2

   (a) Assuming that a risk-free asset is available, define what is meant by the Security Market Line (SML) in the context of the CAPM. Construct the SML from the information above and interpret the values of its coefficients.

   (b) You are informed that a fourth asset, with $\beta_4 = 2.0$, is available. Empirical evidence reveals that its average rate of return is 16.0%. According to the CAPM, is this asset underpriced or overpriced?

~~4. Discussion~~

   ~~(a) What are the differences between CML and SML?~~

   ~~(b) Think about how the assumptions of the CAPM are used in the derivation of the CAPM prediction. This will help you understand why these assumptions are needed.~~