THE INSTITUTE OF FINANCE MANAGEMENT

INSTITUTE OF FINANCE MANAGEMENT CHUO CHA USIMAMIZI WA FEDHA

BACC III, BBF III , BEF & BAIT III 2023 - 2024

ACU 08103: BFU 08104 INTERNATIONAL FINANCE

PORTFOLIO THEORIES TO MANAGE INTERNATIONAL DIVERSIFICATION

TUTORIAL QUESTIONS

TQ1: [INTERNATIONAL PORTFOLIO RISK AND RETURN]

Portfolio theory has played a crucial role in explaining the relationship between risk and return where more than one investment is held. With this regard discuss the capital market line (CML).

TQ2: [INTERNATIONAL CAPM AND RISK]

(1) Discuss the standard Capital Asset Pricing Model (CAPM), theoretically and graphically with its assumptions

(2) Discuss the International Capital Asset Pricing Model (ICAPM) and how does it differ from the standard CAPM model.

TQ3: [INTERNATIONAL PORTFOLIO RISK AND RETURN]

A Tanzanian Portfolio Manager is considering the benefits of increasing his diversification by investing overseas. He can purchase shares in individual country funds with the following characteristics:

	TANZANIA	UGANDA	KENYA
Expected Return	15	12	5
Standard Deviation	10	9	4
Correlation with Tanzania	1.0	0.33	0.06

Required:

(i) What is the expected return and standard deviation of return of a portfolio with 25% invested in the Uganda and 75% in Tanzania?

(ii) What is the expected return and standard deviation of return of a portfolio with 25% invested in the Kenya and 75% in Tanzania?

TQ4: [INTERNATIONAL PORTFOLIO RISK AND RETURN]

A Tanzanian portfolio manager established an international equity portfolio by investing 60% of his funds in TATEPA shares and 40% of his funds in IBM shares. Returns on the shares over three years are as provided below:

Year	TATEPA [TANZANIA]	IBM [USA]
1	10	9
2	12	8
3	15	16

Returns from the two stocks are positively correlated (Correlation coefficient estimated at 0.9)

Required:

(i) Calculate the risk associated with investment in each of the individual capital markets.

(ii) Based on the above information, calculate the risk and return of the proposed international portfolio.

TQ5: [PORTFOLIO RISK AND RETURN]

You are a Portfolio Manager working with a multinational company with a subsidiary in Dar es Salaam. Your Managing Director has provided you with the following returns in three different stock markets. A decision is to be made whether an equally invested portfolio should be formed constituting shares from the three markets. The shares can be purchased in individual country funds.

State of the World	Probability	China (Return in %)	Tanzania (Return in %)	Kenya (Return in %)
I	0.1	10	9	20
II	0.6	12	8	22
III	0.3	15	16	14

It has been established that the returns from the three markets are not correlated. Your Managing Director has requested that you should compute the important key parameters of the proposed portfolio to assist him in making the investment decision.

Required:

(i) Calculate the risk associated with investment in each of the individual capital markets.

(ii) Based on the above information, calculate the risk and return of the proposed international portfolio.

(iii) State with reasons whether benefits of international portfolio diversification can be achieved in the above proposed international portfolio.

TQ6: [INTERNATIONAL CAPM AND RISK]

Use the following data to answer the questions that follow.

Country	Correlation with Tanzania Market	Standard Deviation of Returns
TANZANIA	1.00	18.2
UGANDA	0.60	21.9
KENYA	0.33	34.4

Required:

(i) Calculate the foreign market betas relative to the Tanzania market.

(ii) Calculate the risk of an internationally diversified portfolio that is equally invested in Tanzania and in each of the individual foreign country markets. State in each case whether the risk of the internationally diversified portfolio is considerably below or above the risk of the Tanzania portfolio.