AFRICAN ECONOMIC RESEARCH CONSORTIUM

Collaborative MA Programme in Economics for Anglophone Africa (Except Nigeria)

JOINT FACILITY FOR ELECTIVES
JUNE – OCTOBER 2006

CORPORATE FINANCE & INVESTMENT II

Second Semester: Final Examination

Time: 09.00 AM – 12.00 Noon **Thursday, September 28, 2006**

INSTRUCTIONS:

Candidates must answer **ANY FOUR** questions. Each question carries 15 marks.

Question 1

A company named KENYA CLEARNERS specializes in Office and Home cleaning. The company started a few years ago with a zero debt-equity ratio financing and a cost of equity of 14%. Suppose it refinances to the following market-value capital structure Debt (D) = 45%, at r_D=9.5%, Equity (E) =55%. KENYA CLEANERS pays a corporate tax of 40%

a) What is KENYA CLEANERS' after tax Weighted Average Cost of Capital (WACC)? ***(3 Marks)***

b) What is the meaning of this indicator? ***(3 Marks)***

c) What is the message of M&M proposition II with taxes? ***(3 Marks)***

d) Use that (M&M) proposition II to calculate the new cost of Equity of KENYA CLEANERS ***(3 Marks)***

e) According to M&M proposition I with tax the value of a Company like KENYA CLEANERS increases as total debt increases because of interest tax shield if compared with the situation with no debt $V_L = V_U + T_C D$ where V_L

is the value of KENYA CLEANERS with debt (the Levered Firm or Levered scenario) and V_U is the value of KENYA CLEARNERS without debt

(i) What do you understand by levered firm? ***(1 Mark)***

(ii) Give the general proof of M&M proposition I with tax using EBIT (as earning before interest and tax), r_0 as the cost of capital to an all-equity firm (V_U), r_D as the cost of debt , T_C the corporate tax and D for debt. ***(1 Mark)***

(iii) From the message of M & M proposition I and II with taxes and considering bankruptcy cost, what can you conclude on the static theory of capital structure and the optimal capital structure? ***(1 Mark)***

Question 2

Suppose you want to realize an empirical study on Asset Pricing Theories and the Market Efficiency in your country

a) Give the definition of the Capital Asset Pricing Model (CAPM) ***(3 Marks)***

b) Suppose that you are investigating on the security market line of company named "AFRICA HOME LTD" and specialized in fancy African Home furniture

(i) What is the Security Market Line? ***(1 Mark)***

(ii) Suppose that in your econometric study you end up with the following regression $R_{A\,t} = 0.5 + 0.80 R_{Mt}$ over 1995-2005 where R_{At} is "AFRICA HOME" security return and R_{Mt} the Market return. If you suppose that all econometric properties of this model are met. What is the meaning of the coefficient of R_{Mt}? ***(1 Mark)***

(iii) Suppose that the Market risk premium is 8% and the cost of equity is 12.4%. What is the return on the government bond rate? ***(1 Mark)***

c) What is Market Efficiency? ***(3 Marks)***

d) What are the different forms of Market Efficiency? ***(3 Marks)***

e) In investigating on Market Efficiency in your country you end up with the following testable model of this form $\Delta P_t = \sum_{t=1}^{N} a_{t-1}\Delta P_{t-1} + e_t$ where P_t is the stock price at time t and e_t independent and identically distributed random variable possessing the usual properties of a stochastic variable. Suppose t=1, 2, …..10 and you get the following results for your regressions in table 1.

Table: 1 Efficiency test correlation coefficients

Lag	1	2	3	4	5	6	7	8	9	10
data	0.27 (0.64)	0.12* (2.45)	0.03 (0.7)	0.5 (0.7)	0.04** (1.7)	0.08 (0.06)	-0.01* (-2.563)	0.09* (3.06)	0.10 (1.02)	0.06 (-0.28)

where * and ** mean significance at 5% and 10% respectively.What will be your conclusion? ***(3 Marks)***

Question 3

a) A company named "KETURA" based in Nairobi has just paid a cash dividend of Ksh 4 per share and investors require a return of 16% from investment such as this. Assuming that the dividend grows at 8% per year:

(i) What is the current value of this stock? ***(1 Mark)***

(ii) What will the stock be worth in 2 years? ***(2 Marks)***

b) To increase its capital the company issued bond of a par value of Ksh 10,000 with a coupon of 8% and term to maturity of 10 years. What does this mean? (Use explanation of the three concepts in this question) ***(3 Marks)***

c) What is the definition of yield curve and what are the determinants? ***(3 Marks)***

d) Suppose that the yield to maturity one-year zero coupon bond of that company is 4%.

(i) What is yield to maturity? ***(1 Mark)***

(ii) If the forward rate is 5% what will be the yield on 2-year. How will the slope of the yield curve behave? ***(2 Marks)***

e) The company, which has its headquarters in Nairobi, is planning to invest in foreign assets on stocks market in Nigeria to profit from a large market. What are the kinds of risk associated with such an international investment? ***(3 Marks)***

Question 4

a) If you were supposed to advise a company of your country on its asset allocation, what would you tell the company? ***(3 Marks)***

b) The company is willing to investigate on the sensitivity of its business to the economic environment in the country.

(i) What are the factors that can influence its business? ***(1 Mark)***

(ii) The Company found a value of 4 for its degree of operational leverage. What does it mean? ***(1 Mark)***

(iii) Suppose the company holds some American market assets and wants to use passive strategy. What does it mean and what are the instruments it can use? ***(1 Mark)***

c) Below are the characteristics of the portfolio (P) of the company in comparison to the market (M)

	Portfolio P	Market M
Average return	34%	27%
Beta	1.30	1.2
Standard deviation	40%	29%
Non systematic risk $\sigma_{(P)}$	15%	0%

Suppose that the Government bond rate is 6% during the period. Calculate the following portfolio performance

(i) Sharpe’s measure ***(1 Mark)***

(ii) Treynor’s Measure ***(1 Mark)***

(iii) Information ratio ***(1 Mark)***

d) Can we compare these performance measures? Explain ***(3 Marks)***

e) By which measures portfolio P outperforms the market? ***(3 Marks)***

Question 5

A former state owned tropical beverage manufacturer of an African Country named “AFRICA TEA Co” is envisaging in its restructuring plan an M&A with a European Firm. Suppose you work with an Investment Bank contracted to assist “AFRICA TEA” in the restructuring within Private sector development policy framework of the country

a) During a meeting with the staff you were asked if there is any difference between Merger, Acquisition and Takeover. What will be your answer? ***(3 Marks)***

b) A member of the Trade Union is willing to know the motives behind Mergers and Acquisitions. What will be your answer? ***(3 Marks)***

c) During the acquisition process how will the stock price of the target company behave in the short term? What about the price of the stock of the acquiring firm? Explain ***(3 Marks)***

d) Will the operation add value to the firm? Explain ***(3 Marks)***

e) What would be the points on which you will advise the firm to be careful on to get a successful operation? ***(3 Marks)***

Question 6

In a press release on September 15, 2006, Daniel Kauffman, Director of Global Governance of the World Bank Institute and Co-Author of World Bank Report of Governance 2006 entitled “Governance Matters 2006” said the following:

“Our report is very frank in suggesting that Africa, on average, faces enormous governance challenges. Many countries are not doing well in terms of governance and in terms of controlling corruption even if there are shining stars showing improvement in governance. We call it the 300 percent development dividend. A country that improves in governance gets three times more income per capita in the long term – from $1,000 per capita per year to $3,000 or from $3,000 to $9,000 a year.”

Using the different indicators of governance and their implications for corporation, as well as the message of the Investment Climate Assessment Studies conducted by the World Bank in many countries, discuss how the governance on the continent is a bottleneck to capital market development as well as investment and therefore how this constraint impacts on growth and poverty reduction on the continent. ***(15 Marks)***