THE INSTITUTE OF CHARTERED ACCOUNTANTS OF PAKISTAN

Final Examinations Winter 2009

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BUSINESS FINANCE DECISIONS

(MARKS 100)
(3 hours)

Q.1 Attock Index Tracker Fund (AITF) is an open-end mutual fund and was incorporated in 2004. However, since inception, its performance has remained unimpressive and it has generally been outperformed by KSE-100 index.

You have recently joined AITF as its Fund Manager and have been asked by the management to review the current composition of the portfolio. Details relating to the shares currently held in the portfolio are as follows:

Name of company	Market price per share	No of shares	Standard deviation	Covariance	Price forecast after one year	Dividend per share next year
	Rupees	in 000			Rupees	Rupees
A	25	150	0.150	0.024	27	2.00
B	15	230	0.240	0.039	17	1.00
C	46	190	0.160	0.044	52	2.50
D	106	50	0.320	0.033	111	4.00
E	75	100	0.190	0.018	85	2.00
F	114	120	0.220	0.041	125	3.00
G	239	60	0.190	0.032	220	5.50
H	156	80	0.210	0.040	168	3.00
I	145	35	0.180	0.034	170	2.50
J	67	45	0.220	0.033	75	1.00

Following information is also available:

(i) The average market return of the KSE-100 Index companies is 12% and the standard deviation is 18%.
(ii) The risk free rate of return is 8%.
(iii) The correlation between the market value of securities held by AITF and KSE-100 Index is 0.737.
(iv) The average return on AITF's shares is 11% with standard deviation of 22%.

Required:

(a) Compute the AITF's systematic risk and assess the extent to which AITF has matched the performance of KSE-100 Index.
(b) Determine whether AITF achieves the return according to its risk profile.
(c) Identify those shares in AITF's portfolio which are expected to underperform and should be removed.
(d) Compute the revised beta of AITF i.e. after excluding the underperforming shares. Assume that cash generated from disposal of underperforming shares will be used to buy the remaining shares in proportion to their current holdings. **(20)**

Q.2 Kohat Limited (KL) is considering to set-up a plant for the production of a single product IGM3. The initial capital investment required to set up the plant is Rs. 15 billion. The expected life of the plant is only 5 years with a residual value of 20% of the initial capital investment. The plant will have an annual production capacity of 1.0 million tons.

A local group has offered to purchase all the production for Rs. 8,000 per ton in year 1 and thereafter at a price to be increased 5% annually. Other relevant information is as under:

(i) In year 1, operating costs (other than wages and depreciation) per annum would be Rs. 2,000 per ton. They are expected to increase in line with Producer Price Index (PPI). Annual wages would be Rs. 1.0 billion and are linked to Consumer Price Index (CPI).
(ii) KL's cost of capital for this project, in real terms is 6%. General inflation rate is 11%.
(iii) The tax rate applicable to the company is 30% and the tax is payable in the same year. The company can claim normal tax depreciation at 20% per annum under the reducing balance method.

Price indices of the last six years are given below:

Year	2003	2004	2005	2006	2007	2008
PPI	107	119	130	142	160	175
CPI	112	125	139	155	173	195

The costs linked to the above indices are expected to grow at their historic compound annual growth rate.

Required:
Advise whether KL should invest in the project. **(14)**

Q.3 Tarbella Enterprises (Pvt) Limited (TEPL) is the manufacturer and supplier of chemical X. Due to an internal conflict, the directors of TEPL have offered to sell the company to Chakwal Limited (CL) which is one of its largest customers.

CL has hired you to determine the value at which it would be feasible for it to acquire TEPL. The relevant information is as follows:

(i) CL would consider TEPL as a separate cash generating unit and it will have a useful life of five years. The normal capacity of TEPL's plant is 22,000 tons.
(ii) During the year ended June 30, 2009, CL consumed 15,000 tons of chemical X.
(iii) Summary of TEPL's profit and loss account for the year ended June 30, 2009 is as follows:

	Rs. in million
Sales (20,000 tons)	240
Variable costs	(80)
Fixed costs	(50)
Operating profit	110

(iv) CL's planning department has provided the following projections related to the next five years:
- CL's demand for chemical X would increase by 5% each year.
- The annual increase in the price of chemical X would be 10%.
- The variable costs per ton of production of chemical X would increase by 12% per annum.
- Fixed costs would increase by 8% each year.

(v) CL intends to use the entire production of chemical X for its internal use only.
(vi) CL maintains a debt equity ratio of 50:50. Its cost of debt and cost of equity is 14% and 20% respectively. Tax rate applicable to both the companies is 30%.

Required:
Compute the maximum price which CL may offer for the acquisition of TEPL. **(13)**

Q.4 The directors of Bannu Holdings Limited (BHL) have decided to sell off its wholly owned subsidiary, Ziarat Engineering Limited (ZEL). Following information has been extracted from the last audited financial statements of ZEL:

	Rs. in million
Sales	2,958
Less: Cost of sales	1,928
Gross Profit	1,030
Allocated expenditures of BHL	(255)
Operating expenses	(388)
Other income	216
Financial charges	(119)
Profit before tax	484
Tax @ 30%	(145)
Net profit	339

A team of executives and employees, lead by the CEO of ZEL is also interested in the acquisition of the subsidiary. They plan to form a new company, Sibbi Engineering (Private) Limited (SEL), which will acquire all the assets of ZEL. After intense negotiations the directors of BHL have finally agreed to sell ZEL to the employees, under the following terms and conditions:

(i) The value of ZEL will be Rs. 2,100 million.
(ii) BHL would pay off all the existing debts of ZEL.
(iii) BHL would acquire 10% shareholding in SEL.

The employees would invest Rs. 270 million in SEL in the form of equity. In order to arrange the balance amount, they intend to accept any one of the following offers:

I A commercial bank has offered a loan on the following terms:
   (i) Loan will carry markup @ KIBOR + 3% and would be payable annually. KIBOR is currently at 8%.
   (ii) The tenure of the loan would be 5 years and it would be repayable at maturity.
   (iii) SEL will have to comply with the following debt equity ratio:

Year	1	2	3	4 - 5
Debt equity ratio	75%	70%	60%	50%

   In case of failure to comply with the above condition, the bank would reserve the right to demand repayment of the entire amount within a period of 30 days.

II An investment bank is willing to provide a convertible loan to SEL. The loan carries interest at the rate of 10% per annum. The principal is repayable in four equal annual installments commencing from the end of year 2. The investment bank will have the option to convert the balance amount of loan into shares of SEL at Rs. 25 each and the conversion option will be exercisable at the commencement of year 4 or year 5. SEL would not be allowed to issue any dividend during the tenure of the loan.

SEL's revenues/expenses are expected to grow in the following manner:

(i) Gross profit would increase at the rate of 3% per annum.
(ii) Operating expenses would increase by Rs. 100 million in year 1 and thereafter @3% per annum.
(iii) 75% of the profit earned by SEL would be available in the form of cash, for repayment of debt. In the case of option 1, SEL plans to invest it in various schemes, till the loan becomes payable and consequently, the other income is expected to grow @ 10% per annum.

Required:

(a) Analyse the two financing options to evaluate whether SEL would be in a position to comply with the terms of the respective loans.
(b) Which offer should SEL accept and why? **(24)**

Q.5 Sajawal Sugar Mills Limited (SSML), a medium sized listed company, is planning to expand its production capacity. The management has estimated that the expansion would require an outlay of Rs. 300 million.

Following figures have been extracted from SSML's financial statements for the year ended June 30, 2009.

Statement of Financial Position

	Rs. in million
Paid up capital (Rs. 10 each)	400
Retained earnings	150
Non-current liabilities	600
Current liabilities	100
	1,250
Fixed assets	1,100
Current assets	150
	1,250

Statement of Comprehensive Income

	Rs. in million
Net profit after tax	125
EPS	3.13

To finance the expansion, SSML is considering a right issue. However, the management of SSML wants to maintain its existing debt equity ratio, return on total assets ratio and dividend payout percentage. Moreover, they wish to keep the ex-right price to be the same as current market price.

SSML follows a policy of retaining 30% of its profits. The current market price of its shares is Rs. 20 whereas its share price beta is 1.23. Presently, market return is 16% whereas yield on one year treasury bills is 12%. Market is assumed to be strong form efficient.

Required:
Under the circumstances referred to in the above situation, what should be:
(a) The right ratio
(b) The right offer price
(c) Theoretical ex-right price
(d) Value of each right **(17)**

Q.6 Qalat Industries Limited (QIL) is a medium sized company which carries out extensive trading (imports as well as exports) with various German companies. The management of QIL is concerned about the recent fluctuations in the exchange rate parity between Pak Rupee (Rs.) and Euro (€) and is considering to hedge the following transactions which it expects to undertake, on December 15, 2009:

Nature of transaction	**Amount**	**Due date of payment / receipt**
(i) Import of IT equipment	€ 223,500	Jun. 15, 2010
(ii) Export of sports goods	€ 98,500	Mar.15, 2010
(iii) Export of medical instruments	€ 77,000	Jun. 15, 2010
(iv) Import of machinery	Rs. 22,500,000	Mar.15, 2010

Other relevant information is as follows:

(i) According to QIL's bank the following exchange rates are expected to prevail on December 15, 2009:

	€1	
	Buy	**Sell**
Spot	Rs. 124.22	Rs. 124.52
3 months forward	Rs. 123.62	Rs. 123.96
6 months forward	Rs. 123.21	Rs. 123.54

(ii) Interest rate on borrowing and lending in respective currencies are as follows:

	Rs.	**€**
3-months / 6 months borrowing	11%	5%
3-months / 6 months lending	6.5%	3%

Required:

(a) Calculate the net rupee receipts/payments that QIL should expect from the above transactions under each of the following alternatives:
   (i) Hedging through forward cover
   (ii) Hedging through money market

(b) Determine which would be the better alternative for QIL.

(Ignore transaction costs) **(12)**

(THE END)