StudentBounty.com

The Institute of Chartered Accountants of Pakistan

Business Finance Decisions

Final Examination | 7 December 2011
Module F | 100 marks – 3 hours
Winter 2011 | Additional reading time – 15 minutes

Q.1 (a) Briefly discuss the Dividend Irrelevance Theory developed by Miller and Modigliani (MM). State three arguments against the validity of this theory. ***(05 marks)***

(b) Al-Ghazali Pakistan Limited (AGPL) is a listed company whose shares are currently traded at Rs. 80 per share. AGPL's Board has approved a proposal to invest Rs. 600 million in a project which is expected to commence on 31 December 2012. There are no internal funds available for this investment and the company would have to finance the project from the profit for the year ending 31 December 2012 and through right issue.

AGPL has a share capital consisting of 20 million shares of Rs. 10 each and its profit for the year ending 31 December 2012 is projected at Rs. 250 million.

The annual return on 1-year treasury bills, the standard deviation of returns on AGPL's shares and the estimated correlation of returns with market returns are 7.5%, 8% and 0.8 respectively. The current market return is 12.9% with a standard deviation of 5%.

Required:
Using MM Theory of Dividend Irrelevance, estimate the price of AGPL's shares as at 31 December 2012, if the company declares:
(i) 20% dividend
(ii) Nil dividend ***(05 marks)***

(c) Justify the MM Theory of Dividend Irrelevance, based on your computation in (b) above. ***(05 marks)***

Q.2 The directors of Khayyam Limited (KL) are considering an investment proposal which would need an immediate cash outflow of Rs. 500 million. The investment proposal is expected to have two years economic life with salvage value of Rs. 50 million at the end of second year.

KL's Budget and Planning Department anticipates that Net Cash Inflows After Tax (NCIAT) are dependent on exchange rate of the US $ and has made the following projections:

	Exchange Rate Rs. 84-87		**Exchange Rate Rs. 88-91**		**Exchange Rate Rs. 92-95**	
	NCIAT	**Probability**	**NCIAT**	**Probability**	**NCIAT**	**Probability**
Year 1	250	65%	320	35%	-	-
Year 2:						
– If Year 1 exchange rate is Rs. 84-87	280	20%	330	65%	360	15%
– If Year 1 exchange rate is Rs. 88-91	340	5%	380	50%	400	45%

All NCIATs are in millions of rupees

KL uses a 14% discount rate for investments having similar risk levels.

Required:
(a) Draw a decision tree to depict the above possibilities. ***(04 marks)***
(b) Determine whether it would be advisable for Khayyam Limited to undertake this project. ***(10 marks)***

www.StudentBounty.com
Homework Help & Pastpapers

Q.3 Ibn-Seena Limited (ISL) is a reputable unquoted company engaged in the business of manufacturing and sale of pharmaceutical products. It is presently considering a proposal to acquire Al-Biruni Pharmaceuticals (Private) Limited (APPL) which is a wholly owned subsidiary of Al-Biruni International (ABI).

Summarised income statements of ISL and APPL for the latest financial year are given below:

		ISL	APPL
		Rs. in million	
Sales		2,500	1,800
Less: Cost of sales	- Variable	(1,350)	(630)
	- Fixed *	(150)	(190)
Gross profit		1,000	980
Selling expenses		(375)	(360)
Administration expenses		(125)	(90)
Profit before tax		500	530
Tax (35%)		(175)	(186)
Profit after tax		325	344

***** *includes depreciation of Rs. 70 million and 100 million respectively*

Other Information

(i) APPL's sales consist of Generic Medicines (40%) and Patented Products (60%). Presently, 20% of the revenue from Patented Products is contributed by a product Z-11. All patents are owned by ABI; however, no royalty or technical fee is presently claimed by it.

(ii) The variable costs of Patented Products are 30% of the sales amount. Product Z-11 will complete its patent period after three years and thereafter its price would have to be reduced. Consequently, the ratio of variable costs of production to sales would fall in line with that of Generic Medicines.

(iii) After acquisition the costs and revenues of APPL are projected as follows:
- Total sales and variable costs would grow at 10% per annum except in Year 4 when the growth rate of sales would decline on account of reduction in price of product Z-11.
- Fixed costs other than depreciation would increase at the rate of 5% per annum. However, depreciation would remain constant over the next five years.
- Selling expenses and administration expenses would be reduced by 30% and 80% respectively. However, from Year 2 onwards, selling expenses would increase at 7% per annum whereas administration expenses would increase by 5% per annum.
- ABI will charge 15% royalty on sale of Patented Products whereas 3% technical fee will be levied on the sales of all products.

(iv) Free cash flows of APPL are expected to grow at 3% per annum after Year 5.

(v) ISL intends to finance this project through debt carrying interest at the rate of 10% per annum. The principal would be re-payable at the end of Year 6.

(vi) ISL would discount this project at its existing weighted average cost of capital of 20%.

Required:

(a) Calculate the bid price that ISL may offer for the acquisition of APPL. ***(17 marks)***

(b) Assess the impact of the acquisition on the wealth of ISL's shareholders at the end of Year 5 assuming that the shares at that time would be priced at 7 times its PE ratio and ISL's profit after tax would increase at 8% per annum. ***(03 marks)***

www.StudentBounty.com
Homework Help & Pastpapers

Q.4 Khaldun Corporation (KC) is a Pakistan based multinational company and has number of inter-group transactions with its two foreign subsidiaries KA and KB, which are located in USA and UK respectively. Details of receipts and payments which are due after approximately three months are as follows.

Paying Company	**Receiving Company**		
	KC (Pak)	**KA (USA)**	**KB (UK)**
	-----------in million-----------		
KC (Pak)	-	Rs. 131	£ 5.10
KA (USA)	US $ 1.50	-	US $ 4.50
KB (UK)	£ 4.00	£ 1.80	-

The current exchange rates and interest rates are as follows:

Exchange Rates				
	US $ 1		**UK £ 1**	
	Buy	**Sell**	**Buy**	**Sell**
Spot	Rs. 86.56	Rs. 86.80	Rs. 134.79	Rs. 135.13
3 months forward	Rs. 87.00	Rs. 87.20	Rs. 135.87	Rs. 136.18

Interest Rates		
	Borrowing	**Lending**
KC (Pak)	10.50%	8.50%
KA (USA)	5.20%	4.40%
KB (UK)	5.90%	5.00%

Required:

(a) Calculate the net rupee receipts/payment that KC (Pak) should expect from the above transactions under each of the following alternatives:
- Hedging through forward contract
- Hedging through money market ***(08 marks)***

(b) Demonstrate how multilateral netting might be of benefit to Khaldun Corporation. ***(06 marks)***

Q.5 Ghazali Limited (GL) operates a chain of large retail stores in country X where the functional currency is CX. The company is considering to expand its business by establishing similar retail stores in country Y where functional currency is CY. As a policy, GL evaluates all investments using nominal cash flows and a nominal discount rate.

The required investments and the estimated cash flows are as follows:

(i)
- **Investment in country X**
  CX 7 million would be required to establish warehouse facilities which would stock inventories for supply to the retail stores in country Y at cost. At current prices, the annual expenditure on these facilities would amount to CX 0.5 million in Year 1 and would grow @ 5% per annum in perpetuity.

- **Investment in country Y**
  Investment of CY 800 million would be made for establishing retail stores in country Y. At current prices, the net cash inflows for the first three years would be CY 170 million, 250 million and 290 million respectively. After Year 3, the net cash inflows would grow at the rate of 5% per annum, in perpetuity.

(ii) Inflation in country X and Y is 7% and 20% per annum respectively and are likely to remain the same, in the foreseeable future. Presently, country Y is experiencing economic difficulties and consequently GL may face problems like increase in local taxes and imposition of exchange controls.

(iii) The current exchange rate is CX 1 = CY 45.

(iv) GL's shareholders expect a return of 22% on their investments. GL uses this rate to evaluate all its investment decisions.

www.StudentBounty.com
Homework Help & Pastpapers

Required:
Prepare a report to the Board of Directors evaluating the feasibility of the proposed investment. Your report should include the following:

(a) Computation of net present value of the project and a recommendation about the viability of the project. ***(12 marks)***

(b) Identification of the risk and uncertainties involved. ***(03 marks)***

(c) Brief discussions on management strategies which may be adopted to counter the risks of increase in local taxes and imposition of exchange controls. ***(05 marks)***

Q.6 Skill Enhancement Centre (SEC) is an established institution with a mission to impart training to the youth by developing their job-related technical skills. It offers industry-specific one year diploma courses to students.

In the recent past, several other institutions have started offering a wide range of new courses with the result that the number of students enrolled in SEC's Textile Designing Course (TDC) has declined to 175 students per annum. SEC is developing its 5-year plan and an important consideration is to replace TDC with Advanced Textile Graphics Course (ATGC).

The following related information is available:

(i) Several computers would need to be upgraded at a cost of Rs. 350,000. However, if ATGC is not introduced 30 such computers may be sold at Rs. 12,000 each. The current book value of each computer is Rs. 15,000.

(ii) ATGC would require new textile designing software which costs Rs. 1,200,000.

(iii) The new course would be taught and managed by the existing staff which receives total remuneration of Rs. 6,000,000 per annum. However, if the enrolment in ATGC program exceeds 225 students per annum, two new technical instructors would have to be engaged at a cost of Rs. 1,800,000 per annum which would be payable in advance.

(iv) Details relating to income from fees and other costs are as follows:

	Timing of cash flows	TDC	ATGC
		Rupees	
Course fee per student	In advance	42,000	43,200
Cost of training material per student	In advance	6,000	7,400
Directly attributable costs (per annum)	In arrears	120,000	230,000
Apportionment of overheads excluding staff costs	In arrears	2,400,000	3,000,000
Preliminary costs (including training of instructors)	In advance	-	750,000

(v) On an average, a new student enrolled in a course brings additional revenue of Rs. 2,400 per annum on account of other activities.

(vi) Being an educational institution, SEC is exempted from income tax.

(vii) SEC assesses the viability of a course using a discount rate of 7%.

(viii) It is assumed that the number of students enrolled would remain constant throughout the five-year period.

Required:
Determine the minimum annual enrolments which would make it financially viable for SEC to introduce ATGC. ***(17 marks)***

(THE END)

www.StudentBounty.com
Homework Help & Pastpapers