



## Final Examinations Winter 2003

December 02, 2003

Business Finance Decisions  
Module F(MARKS 100)  
(3 hours)

Q.1 Dividend Ltd, a company incorporated in 1985, was listed on the Karachi Stock Exchange in 1991. Directors of Dividend Ltd have, since then, followed a dividend policy of giving a constant payout ratio to the shareholders. Till 1996 it had, with an exception of 1994, successfully resulted in giving the share prices a stable growth. However, since 1997 onwards, the prices have been extremely volatile and directors are worried about the prevailing situation.

Some of the company data since its incorporation is given hereunder:

Year	Income before Tax	Income after Tax	Dividend Per Share	Price Per Share	%age Increase in		
					Income	Dividend	Price
					after Tax	Per Share	Per Share
	Rupees '000		Rupees				
1991	100,000	69,000	2.51	55.22	-	-	-
1992	110,000	75,900	2.76	60.22	10.00	9.96	9.05
1993	123,200	85,008	3.09	84.65	12.00	11.96	40.57
1994	134,288	92,659	3.37	79.44	9.00	9.06	(6.15)
1995	146,373	102,461	3.73	89.72	10.58	10.68	12.94
1996	162,475	113,733	4.14	102.37	11.00	10.99	14.10
1997	155,976	109,183	3.84	58.62	(4.00)	(7.25)	(42.74)
1998	191,850	124,703	4.39	77.30	14.21	14.32	31.87
1999	175,100	131,325	3.85	62.83	5.31	(12.30)	(18.72)
2000	149,231	119,385	3.50	42.61	(9.09)	(9.09)	(32.18)
2001	220,135	154,095	4.52	73.76	29.07	29.14	73.10
2002	180,090	117,059	3.12	32.44	(24.03)	(30.97)	(56.02)

In an attempt to stabilize the share prices, a 20% bonus issue was made on 23<sup>rd</sup> of October, 1999 and a further 1 for 10 rights issue was made on 17<sup>th</sup> April, 2002. Balance Sheet of the company as at December 31, 2002 shows an authorized capital of Rs 200 million having par value of Rs 10 per share. Paid up capital is Rs.150 million.

An analysis of the accounts have also revealed that a defaulted loan owed by the company amounting to Rs 2 million and interest thereon amounting to Rs 909,096 were converted into shares on 19<sup>th</sup> January, 1996 at a 20% discount to the par value.

**Required:**

- (i) Comment on management's efforts to stabilise prices through bonus issue of 1999 and rights issue of 2002. (04)
- (ii) Demonstrate, if you agree with it, that a constant payout has been made to the shareholders. (03)
- (iii) Estimate the required rate of return by the shareholders of the company. (02)

(2)

(iv) Identify reasons for the non-proportionate change in the dividend and the price and quantify for the change in price of the share in 1999 compared to 1998 due to change in:

- (a) Growth rate;
- (b) Number of shares; and
- (c) Increase in earnings.

(08)

(v) Write a descriptive note about the factors that should be considered while formulating a dividend policy for a company and their respective impact

(04)

Q.2 Milk & Cereals Limited (MCL) is a well established food products company in Pakistan, directing its focus mainly on the areas of milk and primary cereals. Two of its major selling brands are “Pure Milk (PM)” and “Healthy Cereals (HC)”. PM has an established market and expected sales for the next year are estimated at monthly average of 90,000 litres. Similarly, HC in the next year is expected to have an average monthly sale of 63,000 kgs. Sales of the product is expected to grow at a rate of 2% per annum. Production quantities on average equal the sales quantities. Both the products are produced on separate plants. For next year the capacity utilization is expected to be 90%. PM in the next year will be sold at a price of Rs 10 per litre and HC at Rs 125 per kg. Prices are subject to 5% increase per annum.

MCL is typically financed with an aggressive debt-funding strategy characterised by high level of gearing (about 60% debt and 40% equity based on the book values) and a mix of fixed rate debentures and floating rate bank loan with quarterly rolling. Equity comprises of 1,000,000, Rs.10 Class ‘A’ Ordinary voting shares and 500,000 Rs.15, Class ‘B’ Ordinary non-voting shares. Class ‘B’ shareholders, being non-voting, require 25% more return than the Class ‘A’ voting shares. Class ‘A’ shares are being traded at Rs 25 and Class ‘B’ at Rs 29. There is also an amount of Rs 2,302,167 being carried in the balance sheet in the form of reserves. Debt comprises 15000, 12% debentures having par value of Rs.1000 each with 15 years maturity period. These were issued 3 years ago and are redeemable at 15.50% premium. Effective yield on these debentures when issued was 12.40%. The current market value of debentures is Rs 1,186. Bank loan was taken 5 years ago.

The company has recently been approached by United Nations High Commission for Refugees (UNHCR) for a 10 years contract of its product HC to be supplied to refugees. Price offered is at 25% discount to the market price for the next year. Initial quantity to be supplied is 7,000 kgs. per month. The required quantity is to increase at a steady rate of 3% per annum. Price in real terms is to remain fixed for the term of the contract.

As the current capacity is not enough for the production the company is prepared to install a new plant at a cost of Rs 10 million with annual capacity of 100,000 kgs. The plant will be installed as and when the old plant capacity is not enough to meet the sales requirement, as the plant installation time is not expected to be more than a week. The plant is expected to have a working life of 9 operating years with a scrap value equal to 10% of its cost. Initial and normal depreciation rates are 50% and 10% respectively. No depreciation is allowed in the year of disposal, and any gain or loss on disposal is treated as business income or expense.

UNHCR has arranged a subsidised loan for MCL to the extent of the capital investment required. Loan carries an interest of 7% p.a. and will be repayable at the end of the supply contract. Working capital investment of Rs 500,000 and Rs 1 million is required at the end of year 2 and year 3 respectively.

Fixed costs associated with the current plants are Rs 1.5 million a year. The new plant for HC being installed will have fixed costs of:

Capacity Utilised	Annual Fixed Cost (Rs)
Not more than 50%	200,000
More than 50%	300,000

Variable production cost per kg of HC is Rs 75. These costs in real terms are not expected to change in future as any price or rate change is expected to be met by production efficiency.

Taxation rate applicable to MCL is 35%. Inflation rate prevailing is 3.67% p.a. which is not expected to materially change in future. Companies in the same industry as MCL have an averaged equity beta of 1.40 and an average Debt to Equity ratio of 30:70. Market return is 16% p.a. and risk free return rate is 7%. Current applicable rate of medium to long term debt to MCL is 10% before any taxes.

Assume that all costs and revenues given here are real. Tax is being paid in the year the charge arises.

**Required:**

Compute the Net Present Value of the project, if financed through the subsidized debt as arranged by UNHCR, and advise the management as to the desirability of going for this project. (35)

Q.3 Slow Stores Ltd., is in the business of running superstores across the country and besides highways. For business controlling purposes, it has divided these stores into three categories, A, B and C. The average annual turnover of the company is around Rs 100 million, all of which is almost evenly distributed throughout the year.

Category A stores are located in the major cities and account for 40% of the total turnover. Category B stores are in the major towns and contribute 32% to the sales whereas the remaining turnover comes from Category C stores located besides the highways.

The stores are open 7 days a week from 10 a.m. till 10 p.m. On average, 20% of the people pay through credit cards whereas the remaining sales are in cash. Company follows a banking policy whereas Category A stores bank their cash every third day i.e. Monday and Thursday. Category B stores bank their cash collections on Friday whereas Category C stores bank on every second Tuesday.

A recent proposal by a new employee has pointed out these slow banking habits being followed, and has suggested banking every morning at 9 a.m.

**Required:**

- (a) Assuming that the banks are open throughout the week except on Sunday, and that Slow Stores Ltd has financed its working capital by bank borrowings at the rate of 11% p.a. Calculate:
- total savings in financial cost from the new strategy; and
  - if the average overdraft balance of Slow Stores Ltd is Rs 1,500,000 the new average overdraft balance, if this daily banking strategy is implemented. (08)

- (b) Write a brief note describing other cost considerations relating to the implementation of above mentioned banking strategy. (03)

Q.4 Small Ltd is a growing public un-listed company in the mobile phones industry and has appeared to be one of the most successful ones in its category in the last five years. Its success is primarily based on the recent range of “blue-tooth” mobile phone sets for which it holds patents. Company’s success, lately, has attracted other companies in the industry to acquire Small Ltd as it is believed, considering the rapid growth of “blue-tooth” line of mobile phones, that the company is undervalued. Small Ltd’s summarized results for the most recent year are as follows:

**Balance Sheet as at December 31, 2002 (Rs.'000')**

Fixed Assets		
Cost	29,000	
Accumulated Depreciation	<u>(13,200)</u>	15,800
Current Assets		
Stocks	10,500	
Debtors	7,500	
Cash and Bank	<u>1,200</u>	<u>19,200</u>
		<u>35,000</u>
Share Capital and Reserves		
Issued, subscribed and paid-up capital		
Rs 10 per share	2,000	
General Reserves	7,000	
Un-appropriated profits	<u>4,000</u>	13,000
Long-Term Loan		5,000
Deferred Taxation		2,600
Current Liabilities		
Creditors, accrued and other liabilities	8,200	
Taxation	2,650	
Short-term loan under mark-up arrangement	<u>3,550</u>	<u>14,400</u>
		<u>35,000</u>

**Abridged Profit and Loss Account for the year ended December 31, 2002**

	Rs.'000'
Sales and Other Income (Turnover)	54,000
Cost of Sales	(31,280)
Administration and Other Expenses	<u>(12,600)</u>
Profit before Interest and Tax	10,120
Financial Charges	<u>(920)</u>
Profit before Tax	9,200
Taxation	<u>(2,760)</u>
Profit after Tax	6,440
Dividend	<u>(3,000)</u>
Current Year's Profit Retained	<u>3,440</u>

Other data relating to the company is:

Earnings' Growth Rate	12%
Sales' Growth Rate	15%
Dividends' Growth Rate	9%
Estimated Required Rate of Return by Shareholders	16%

Average P/E ratio of similar listed companies in mobile phone manufacturing industry has been around 9.50. The P/E is expected to inflate by about 20% due to listing. Similarly, the patents held by Small Ltd have subjectively been said to have given a 15% boost to the company’s value.

Big Ltd, a listed company in the same business, has bid for the shares and given two options i.e.

1. Rs 35 cash plus 3 ordinary shares of Big Ltd, or
2. Rs 200 cash per share

Data relating to Big Ltd is as follows:

Turnover (million Rupees)	270.00
Profit before Tax (million Rupees)	23.50
Gearing (book values – debt to equity)	20:80
Share Price before making the bid (Rupees)	78.25
Share Price after making the bid (Rupees)	67.75
Earnings Per Share (Rupees)	13.50
Earnings' Growth Rate (%)	13
Dividends' Growth Rate (%)	8
Sales' Growth Rate (%)	23
Estimated Required Rate of Return by Shareholders(%)	12

**Required:**

- (a) Evaluate the bids from the stand point of the shareholders of Small Ltd. **(10)**
- (b) State what other factors / information would help you in a better evaluation of the offered bids. **(05)**

Q.5 Best Cocoa Ltd is involved in the process of crushing cocoa beans and producing cocoa butter and powder. Cocoa beans are bought from the growers in Malaysia and Indonesia while the butter and powder are exported to Europe and North America.

As the company's next one year's production is sold at the prevailing market rates of Cocoa and it cannot place orders with growers for one year future delivery, the company enters into forward purchase contracts in London Cocoa Terminal. To limit its losses due to unusual fluctuations in Cocoa and foreign exchange markets, the company hedges itself in both markets. To hedge the beans price risk the company uses spot and forward contracts in London Cocoa Terminal whereas foreign exchange forward contracts are used to hedge against foreign currency risk.

The related data is as follows:

			<b>UK Pound Per MT</b>
London Terminal bean price	– spot	– June 1, 2003	1,000
	– forward	– July 1, 2003	1,008
	– forward	– Oct 1, 2003	1,032
	– forward	– Jan 1, 2004	1,056
			<b>US \$</b>
\$/UK Pound Exchange Rate	– spot	– June 1, 2003	1.60
	– forward	– one month	1.62
	– forward	– two months	1.64
	– forward	– three months	1.65
	– forward	– six months	1.69
	– forward	– one year	1.76

(6)

The production parameters are as follows:

1000 MT beans produce 400 MT of powder and

1000 MT beans produce 200 MT of butter

The company is carrying 500 MT beans in stock as at June 1, 2003 out of which 200 MT shall be used in the month of June. The beans purchase contracts outstanding are as follows:

July 1, 2003	200 MT @ UK Pound 1,060 per MT
Oct. 1, 2003	400 MT @ UK Pound 1,050 per MT
Jan. 1, 2004	600 MT @ UK Pound 1,060 per MT

Following are the UK Pound forward contracts against US\$ which are outstanding:

<u>Contract #</u>	<u>Period</u>	<u>Sold US\$</u>	<u>Rate</u>
1	one month	286,200	1.55
2	four months	579,600	1.58
3	seven months	890,400	1.60

Ignoring the timing of shipments within each quarter following is the schedule of shipments based on the booked orders for the next 3 quarters:

	<u>Powder</u>	<u>Butter</u>
	<u>(Quantities in MT)</u>	
July 1, 2003	240	120
Oct. 1, 2003	320	150
Jan. 1, 2004	400	210

The company carries at least 200 MT of beans in stocks whereas the stock of powder is nil throughout the year due to efficient production planning. It uses powder sale figures to calculate bean purchase requirements.

**Required:**

- (a) Calculate company's open bean position in quantity as at June 1, 2003 **(06)**
- (b) Calculate company's UK Pound open position considering the beans open position and by using US\$ as a base currency. **(06)**
- (c) Calculate unrealized gain/loss on UK Pound open position. **(06)**

**(THE END)**