Exhibit III

CITY BEAUTIFUL TRAVELS

Estimate of Interest Tax and PAT

(Rupees in thousand)

Year (1)	PBIT (2)	Interest (3)	PBT (4) = (2) – (3)	Tax (5)	PAT (6) = (4) – (5)
	Rs.	Rs.	Rs.	Rs.	Rs.
	(75)	258	(333)	-	(333)
2	247	192	55	-	55
3	508	120	388	26	362
4	471	48	423	106	317
5	385	02	383	96	287

Exhibit IV

CITY BEAUTIFUL TRAVELS

Estimate of Net Cash Flows

(Rupees in thousand)

Year (1)	PAT (2)	Depreciation (3)	(2)+(3) (4)	Loan Repayment (5)	Equity Dividend (6)	NCF (4)-(5)-(6) (7)	Cumulative NCF (8)
1	(333)	900	567	480	80	07	07
2	55	630	685	480	120	85	92
3	362	441	803	480	150	173	265
4	317	309	626	480	150	(04)	261
5	287	216	503	80	150	273	534

Case 37

DELUXE AUTO LIMITED

In the beginning of 2011, the board of directors of Deluxe Auto Limited (DAT) was considering an investment proposal for the introduction of a new model two-wheeler scooter. The break-up of the project cost is given in Exhibit I. Mr. N Ranganathan, the Production Manager of the company, explained the technical features of the project and impressed upon the board members that it was technically an excellent product to be introduced in the highly competitive two-wheeler market. According to him, the company will be able to gain a technical lead over its competitors if the project is undertaken. Mr. G Ramesh, the finance manager, who presented the financial analysis of the project, agreed with Mr. Ranganathan that it was an attractive investment opportunity.

DAT is a large manufacturer of two-wheeler scooters. The company has passed through financial ups and downs in the recent past. In the late seventies, the company performed very badly and accumulated heavy losses. This performance was attributable to one of its models which was technically superior to the existing models of the competitors, but could not find favour with customers and failed in the market. The company has now recovered from its setback. It has wiped out its accumulated losses and has shown surplus in the last two years. The management has, however, become quite cautious in undertaking any new investment projects. It is generally very reluctant to undertake a project unless its profitability is very high. The minimum cut-off rate is 18 per cent. This rate includes compensation for various kinds of risks including general price-rise. The company has recently introduced the discounted cash flow method of project evaluation, although it continues calculating payback period for the projects.

In his financial analysis of the current project under consideration, Ramesh has assumed input and output prices to remain constant. His logic was that adjusting these projections for inflation will not change the results in a significant manner, because if the cost of production goes up, this will be followed by increase in sales prices. He reasoned that the impact of inflation could be passed on to customers. One of the directors disagreed with him and argued that it was not possible for the company to increase the sales price due to the inflation as the company operates under a highly competitive environment. Yet another director felt that even if it was possible to increase prices for any increase in input costs, ignoring inflation in the project analysis could give misleading signals. A director nominated by a financial institution stated that it was incorrect to assume rates of expenses such as power and fuel, wages and salaries, etc. to remain constant. He suggested that an increasing trend was visible in the Electricity Price Index. This implies that power and fuel expenses would increase over the years. Other expenses may also increase in the same manner. He argued further that raw material for DAT consists of mainly tyres and tubes, and that the Tyres and Tubes Index has been showing an upward trend. He therefore doubted the validity of the financial analysis.

Mr. Ramesh has prepared cash flow projections only for five years as he thought that it was difficult to make reasonable forecasts beyond this period (see Exhibit II). He however estimated the terminal value of the project at the end of five years (see Exhibit III). In making these estimates, he considered the likely market price of various assets at that time. Most of the board members generally agreed with the assumptions.

Mr. A K Chaterjee, Chairman of the company, after listening to the views of the board members, asked Mr. Ramesh to gather more information on likely changes in the prices of input and output and to appropriately incorporate them in the financial analysis of the project. Mr. Ramesh decided to first obtain relevant price indices for the past one decade and analyze them to determine the expected inflation rates. Exhibit IV contains the information on various price indices collected by Mr. Ramesh. He worked out the changes in the prices over the years as given in Exhibit V. He was wondering how he could use this information in his analysis. He was not sure whether he should use the general inflation rate or the specific inflation rate in his calculations. He was also not sure how inflation would affect the cut-off rate.

DISCUSSION QUESTIONS

1. The finance manager has assumed the input and output prices to remain constant. He reasons that adjusting cash flow projections for inflation will not change results because if the cost increases this will be immediately followed by increase in sales price. Thus the impact of inflation could be passed on to customers. Do you agree with the finance manager's argument?
2. How would you incorporate inflation in the calculations of cash-flows as given in Exhibit II of the case?
3. Would you like to adjust cost of capital of 18 per cent for inflation? In what manner?

Exhibit I

DELUXE AUTO LIMITED

Break-up of Project Cost

(Rupees in million)

	Rupee Cost	*Rupee equivalent of Foreign Cost*	*Total Cost*
1. Land and site development	86.06	0.00	86.06
2. Buildings	561.65	0.00	561.65
3. Plant and machinery			
Imported	810.76	1,256.91	2,067.68
Indigenous	1,961.24	0.00	1,961.24
4. Technical know-how	49.82	203.82	253.65
5. Training	4.53	4.53	9.06
6. Other fixed assets	231.00	29.44	260.44
7. Working capital margin	296.68	0.00	296.68
Total	4,001.74	1,494.70	5,496.44

Exhibit II

DELUXE AUTO LIMITED

Operating Cash Flows

(Rupees in million)

	2011–12	*2012–13*	*2013–14*	*2014–15*	*2015–16*
Sales	173.58	1,144.02	3,411.37	4,785.10	6,382.45
Cost of sales					
Material	37.75	545.20	1,832.27	2,618.72	3,410.20
Power	1.08	19.42	61.90	85.20	112.91
Wages	3.13	100.94	181.51	291.61	340.03
Overheads	2.26	27.28	49.28	81.53	108.71
COP	44.22	692.84	2,124.96	3,077.06	3,971.85
Admn. exp.	3.43	44.02	58.33	67.45	75.10
Sales exp.	1.86	44.12	120.59	159.71	214.21
Royalty	0.00	23.92	71.67	94.90	121.18
Total cost	49.51	804.90	2,375.54	3,399.12	4,382.34
PBDIT	124.07	339.12	1,035.83	1,385.98	2,000.11
Depreciation*	1,455.30	985.23	668.76	455.43	311.29
PBDT	-48.24	-225.00	9.12	318.04	802.65
ATCF	789.69	662.18	852.29	920.70	1,155.70

Note:

* Depreciation has been computed as per the income-tax rates.

Exhibit III

DELUXE AUTO LIMITED

Estimates of Terminal Values

(Per cent of original cost)

Land	200
Building	75
Plant and equipment	50
Other fixed assets	60
Working capital release	90
Technical know-how	130

Exhibit IV

DELUXE AUTO LIMITED

Indicative Price Indices

Year	*Electricity*	*Tyres and Tubes*	*Motor Vehicle*	*Cycle parts*	*WPI*	*CPI*
2001-02	158.1	154.8	177.3	141.3	173.0	313.0
2002-03	171.6	155.1	173.4	143.6	176.6	301.0
2003-04	182.5	153.7	177.4	146.0	185.8	324.0
2004-05	209.1	181.5	193.2	157.6	185.8	331.0
2005-06	225.6	215.9	240.3	182.4	217.6	360.0
2006-07	239.7	252.1	278.1	193.7	256.9	401.0
2007-08	279.6	291.0	316.5	213.4	281.3	451.0
2008-09	328.2	315.5	326.8	226.1	288.7	486.0
2009-10	387.7	325.2	323.3	234.9	316.0	547.0
2010-11	414.1	344.5	339.0	252.8	338.3	582.0