

Case Study 3: Alok Industries

Alok Industries is a textile manufacturing company based in Mumbai, India. It was founded in 1986 and was once one of the leading textile manufacturers in the country. However, the company has been struggling financially in recent years and is currently in distress on account of overexpansion, falling demand and high costs.

As a result of these factors, Alok Industries has been reporting losses for several years. The company's debt has also been rising, and it is currently estimated to be around ₹ 2,000 crores (Market Value 1200 cr)

In 2017, Alok Industries was admitted to the National Company Law Tribunal (NCLT) under India's Insolvency and Bankruptcy Code. The company is currently undergoing a debt restructuring process, and it is unclear whether it will be able to emerge from bankruptcy.

You are a research analyst working in a vulture fund. A vulture fund is an investment fund that specializes in purchasing distressed assets at discounted prices to generate profits. It typically focuses on buying debt or equity from financially troubled companies or countries. You are assigned the task of valuing Alok industries equity share and provide recommendation.

You recently read AswathDamodaran's famous book "Dark side of valuation" and decided to use the method of "Modified DCF".

The following table provides all possible scenarios along with their probabilities and FCFF for the next five years(decided to be the valuation horizon):

Years	FCFF(INR Cr)					
	Scenario 1		Scenario 2		Scenario 3	
	Probability	FCFF	Probability	FCFF	Probability	FCFF
1	20%	500	30%	250	50%	-120
2	25%	600	35%	300	40%	-100
3	35%	700	45%	350	20%	-50
4	45%	800	50%	400	5%	-10
5	50%	1000	48%	500	2%	0

Additional information:

- Equity Share Capital = Rs 200 crores of Face Value 10 each trading at Rs 52 per share
- Cash & Market value of Non-operating assets = 100 cr
- Tax Rate 22%
- Beta of Debt = 0.65
- $R_f = 6\%$, Market risk Premium = 7%
- Default risk premium applicable to the company= 10%
- Firms similar to Alok industries which are not in distress:

Firms	Equity beta	Debt Beta	D/E	Effective tax Rate
A	1.2	0.3	0.8	18%
B	1.7	0.5	1.5	20%
C	2.6	0.8	2.2	24%

ANSWER:

FCFF(INR Cr)							Kc (refer working note)	14.49%
Years	Scenario 1		Scenario 2		Scenario 3			
	Probability	FCFF	Probability	FCFF	Probability	FCFF	Exp FCFF	PV @ 14.49%
1	20%	500	30%	250	50%	-120	115	\$100.45
2	25%	600	35%	300	40%	-100	215	\$164.02
3	35%	700	45%	350	20%	-50	392.5	\$261.54
4	45%	800	50%	400	5%	-10	559.5	\$325.63
5	50%	1000	48%	500	2%	0	740	\$376.18
PV of Operating Assets of the Firm (i.e. enterprise value)								\$1,227.82
Add: Cash & Non- operating assets								100
Firm Value								1327.82
Less: Market Value of Debt								-1200
Equity Value								127.82
No. of Equity Shares								20
Intrinsic Value of the Share								6.39
Market Price of the Share								52
Comment								Overpriced
Recommendation								Do not Buy/ Go Short

Working Note: Calculation of cost of capital

Step 1: Calculation of unlevered beta

$$B_A = B_E \times \left[\frac{1}{1 + \frac{D(1-t)}{E}} \right] + B_D \times \left[\frac{\frac{D(1-t)}{E}}{1 + \frac{D(1-t)}{E}} \right]$$

Firms	Equity beta	Debt Beta	D/E	Effective tax Rate	Post tax D/E	1 + Post tax D/E	BETA Asset
A	1.2	0.3	0.8	18%	0.656	1.656	0.843
B	1.7	0.5	1.5	20%	1.2	2.2	1.045
C	2.6	0.8	2.2	24%	1.672	2.672	1.474
							3.363
							1.121

Step 2: Calculation of levered beta for Alok industries

Unlevered Beta	Beta Debt	Debt	Equity	D/E	Tax Rate	Post tax D/E	1+ Post tax D/E	Beta equity
1.121	0.65	1200	1,040.00	1.15	22%	0.90	1.90	1.54
							Rf	6%

							Rm-Rf	7%
								16.81%
							Default risk premium	10%
							Pre tax Kd	16%
							Post tax Kd	12.48%
							Wd	0.54
							We	0.46
							Kc	14.49%

Case Study 4: ABC, A Manufacturing Firm

Company ABC, a manufacturing firm based in Kolkata, India, is currently facing financial distress. The company, founded in 2005, has encountered numerous challenges in recent years, including falling demand, high costs, and overexpansion.

ABC has been reporting losses consistently and has accumulated a debt of around ₹7,000 crores (Market Value: ₹6,000 crores). The company's financial situation has led to its admission to the National Company Law Tribunal (NCLT) under India's Insolvency and Bankruptcy Code.

As a research analyst in a vulture fund, it is essential to evaluate ABC's equity share value and provide a recommendation.

The firms latest financial statements are shown in Exhibit 1 and Exhibit 2 below:

Exhibit 1: Income Statement for the year just ended (Rs. in Crores)	
Revenue	15000
EBITDA (5%)	750
Depreciation	100
Int expense (10%)	700
PBT	-50
Tax (@25%)	0
PAT	-50

Exhibit 2: Balance Sheet at T=0 (Rs. in Crores)	
Uses of fund	
Fixed assets	10000
Current assets	2000
Less: Current liability	2500
Net Current Assets	-500
Invested capital	9500
Source of fund	
10% Long term debt	7000

Equity share capital(Rs. 10 Face Value)	3000
P&L A/c Debit Balance	-500
Net worth	2500
Invested capital	9500

Other relevant information is given in **Exhibit 3**

Exhibit 3: Other Information(Rs. in Crores)	
Market value of equity	2400
Market value of debt	6000
Debt Rating	B

You are a research analyst and specialized in the valuation of distressed companies. A client of yours is contemplating buying the stock of the company as it has falling by more than 50% in the last two weeks. Hence he has approached you for advise. You recently read AswathDamodaran's famous book "**Dark side of valuation**" and decided to use the method of "Relative Valuation + Distress Value".

The following table provides information on similar firms (B rated and belonging to the same industry)so as to compute their enterprise value to EBITDA ratio:

Firms	EBITDA	Market value of debt	Market value of equity	Cash and non operating assets
A	400	3000	10000	400
B	800	6400	15600	600
C	100	500	2600	40

The EV to EBITDA multiple for ABC should be at a 25% discount as assessed from market conditions. Also ABC has Rs. 1000 crores in the form of cash and non operating assets. Distress value is to be taken as 10% of the going concern value(firm value).

The conditional probability of distress (i.e. probability of distress in a year given no distress in the previous year) is given below:

Years	1	2	3	4	5
Conditional PD	20%	15%	10%	5%	5%

Calculate the per share value of equity, **compare** that with the existing market price and advise.

ANSWER:

Valuation Exercise

Firms	EBITDA	Market value of debt	Market value of equity	Cash and non operating assets	Enterprise Value	EV to revenue multiple
A	400	3000	10000	400	12600	31.50
B	800	6400	15600	600	21400	26.75
C	100	500	2600	40	3060	30.60
					Average	29.62
Scenario 1: Going concern					Multiple relevant for the firm (25% discount)	22.21
					Enterprise Value	16659.38
					Add: cash and non operating assets	1000.00
					Value of firm (Going concern value)	17659.38
					Less: market value of debt	6000.00
					Value of equity	11659.38
Scenario 2: Distress					Distress value of the firm(10% of Going concern value)	1765.94
					market value of debt	6000.00
					Distress sale value of equity	0.00
Distress Adjusted value of equity						6439.82
No of shares						300.00
IV per share						21.47
Market price						8
Comment:						Underpriced
Advise:						Buy

Working note

Particulars	1.00	2.00	3	4	5
Conditional PD	20%	15%	10%	5%	5%
Conditional Probability of survival	80%	85%	90%	95%	95%
Cumulative prob of survival	55.23%				
Cumulative Prob of distress	44.77%				

Case Study 5: ABC, A Manufacturing Firm

Company ABC, a manufacturing firm based in Kolkata, India, is currently facing financial distress. The company, founded in 2005, has encountered numerous challenges in recent years, including falling demand, high costs, and overexpansion.

ABC has been reporting losses consistently and has accumulated a debt of around ₹7,000 crores (Market Value: ₹5,000 crores). The company's financial situation has led to its admission to the National Company Law Tribunal (NCLT) under India's Insolvency and Bankruptcy Code.

As a research analyst in a vulture fund, it is essential to evaluate ABC's equity share value and provide a recommendation.

The firms latest financial statements are shown in Exhibit 1 and Exhibit 2 below:

Exhibit 1: Income Statement for the year just ended (Rs. in Crores)	
Revenue	12000
EBIT (5%)	600
Int expense (10%)	700
PBT	-100
Tax (@25%)	0
PAT	-100

Exhibit 2: Balance Sheet at T=0 (Rs. in Crores)	
Uses of fund	
Fixed assets	10000
Current assets	2000
Less: Current liability	2500
Net Current Assets	-500
Invested capital	9500
Source of fund	
10% Long term debt	7000
Equity share capital(Rs. 10 Face Value)	3000
P&L A/c Debit Balance	-500
Net worth	2500
Invested capital	9500

Other relevant information is given in **Exhibit 3**

Exhibit 3: Other Information	
Market value of equity	2400
Market value of debt	5000
Cash and non operating assets	1000
Enterprise Value	6400
Rating	B

You are a research analyst and specialized in the valuation of distressed companies. A client of yours is contemplating buying the stock of the company as it has falling by more than 50% in the last two weeks. Hence he has approached you for advise. You recently read AswathDamodaran's famous book "**Dark side of valuation**" and decided to use the method of "Relative Valuation + Distress Value".

The following table provides information on similar firms (B rated and belonging to the same industry) so as to compute their enterprise value to revenue ratio:

Firms	Revenue	Market value of debt	Market value of equity	Cash and non operating assets
A	4000	1500	5000	200
B	8000	3200	7800	300
C	1000	250	1300	20

The EV to revenue multiple for ABC should be at a 25% discount as assessed from market conditions. Also ABC has Rs. 1000 crores in the form of cash and non operating assets. Distress value is to be taken as 20% of invested capital.

The conditional probability of distress (i.e. probability of distress in a year given no distress in the previous year) is given below:

Particulars	1.00	2.00	3	4	5
Conditional PD	25%	20%	15%	10%	5%

Calculate the per share value of equity, **compare** that with the existing market price and advise.

ANSWER:

Valuation exercise

Firms	Revenue	Market value of debt	Market value of equity	Cash and non operating assets	Enterprise Value	EV to revenue multiple
A	4000	1500	5000	200	6300.0000	1.58
B	8000	3200	7800	300	10700.0000	1.34
C	1000	250	1300	20	1530.0000	1.53
					Average	1.48
Scenario 1: Going Concern					25% discount	1.11
					Enterprise Value	13327.50
					Add: cash and non operating assets	1000.00
					Value of firm (Going Concern value)	14327.50
					Less: market value of debt	5000.00
					Value of equity	9327.50
Scenario 2: Distress					Distress value (20% of invested capital)	1900.00
					Less: market value of debt	5000.00
					Distress sale value of equity	0.00
					Distress Adjusted value of equity	4067.26
					No of shares	300.00
					IV per share	31.09
					Market price	8
					Comment:	Underpriced
					Advise:	Buy

Working note

Particulars	1.00	2.00	3	4	5
Conditional PD	25%	20%	15%	10%	5%
Conditional Probability of survival	75%	80%	85%	90%	95%
Cumulative prob of survival	43.61%				
Cumulative Prob of distress	56.40%				