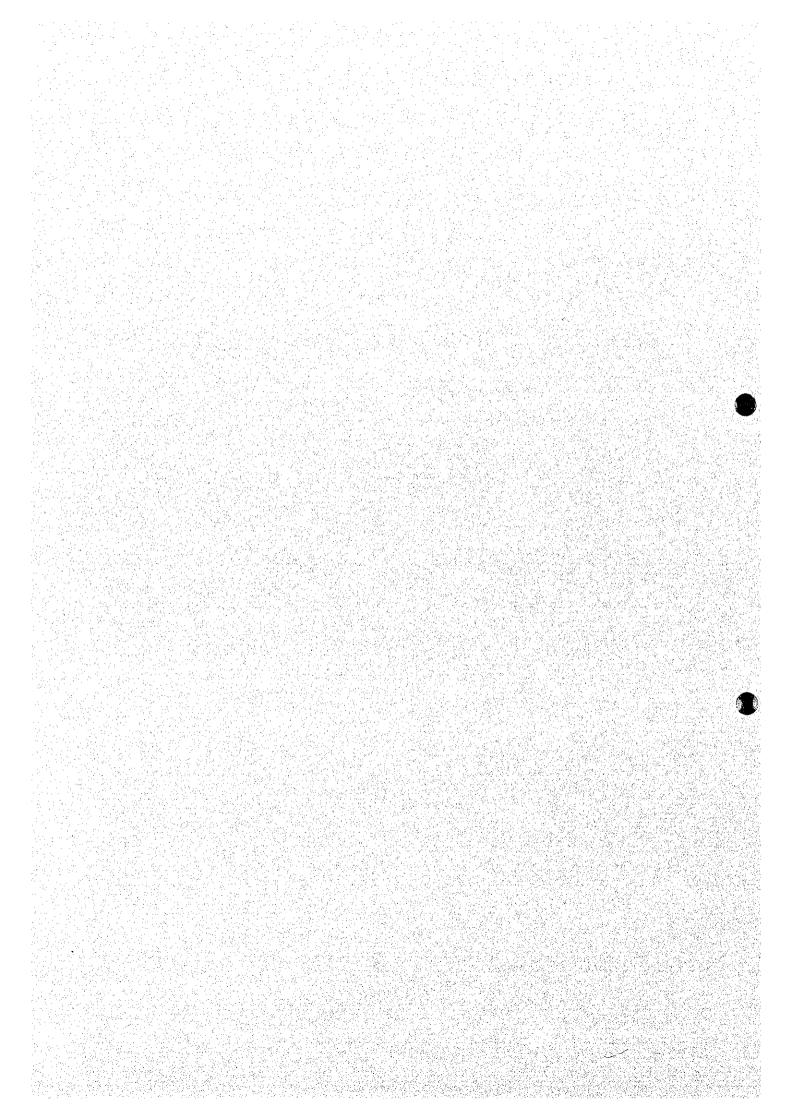
JAPAN INTERN	ATIONAL.	COOPERATION	AGENCY	(JICA)

Chapter VI Feasibility Study for New Cold Rolling Mill

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1. Financial Analysis

1.1 Precondition

(1) Period for feasibility study: for 20 years

(2) Currency: US\$

(3) Estimated time and currency for estimation

Domestic purchases : June, 2000 VND (converted to US\$)
Import purchases : June, 2000 Yen (converted to US\$)

1.2 Preconditions for Profit & Loss Statement

1.2.1 Production and Sales Plan

(1) All products are considered to be sold. However, the fixed amount of materials (hot coils) and products are considered as the inventory. Because the amount of inventory to be stored additionally is the same as that to be consumed in normal operating condition, total yearly amount of production is equal to that of the sales.

(2) Production and sales plan is shown in Table VI-1-1.

(Unit:1000T) 2014-23 Carender Year 11-20 Project Year Cold Rolled Coil Conventional use High class GI substrate Full Hard Annealed

TableVI-1-1 Production and Sales Plan

1.2.2 Sales Price of Products

Total

(1) Assumption for sales price

To make clear the difference of margin of product for each kind of steel, sales prices are classified into three categories, namely Galvanized Iron Substrate (GIS), Cold Rolled Coil for high class use (CH), and Cold Rolled Coil for conventional use (CC). Because the important purpose of the construction of the cold rolling mill is to substitute the imported cold rolled coils, the sales price is to be estimated based on the current situation of that of imported steel flat products in Viet Nam. However, it is difficult to get the price data by the above-mentioned

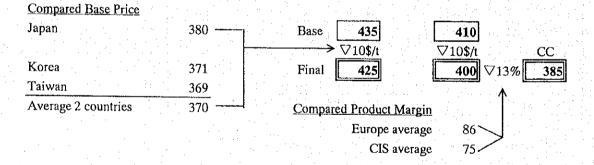
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classification because of the insufficiency of the statistical data of turnover of each category. Accordingly, the sales price of each category is estimated based on the price by thickness which is set by the base price together with the extra price depending on thickness. 5% import duty which is agreed in AFTA is added on the sales price.

(2) The sales price of each category in Viet Nam is shown in Table VI-1-2. The base price is obtained from that in Japan. In view of the steel import in Viet Nam from other Asian countries, the difference in base price in Korea and Taiwan is adjusted. The extra price for each thickness is obtained through the site survey. The price of CC is adjusted by the difference between the average margin of Russian steel flat product (1999/1~2000/5) and that of steel-advanced nations such as Europe.

TableVI-1-2 Sales Price on Each Size per 1ton

			121			J)	Jnit:\$/t)
Size Mix	Price	Produ	ict Com	position	(P/C)	P,	/C
	(a)			(b)	(a×b)	(c)	(a×c)
		GH	GS	GIS		СН	
0.15mm≤T<0.17mm	470	3%		3%	15	1 7	
0.17mm≦T<0.20mm	455	12%		12%	54		
0.20mm≦T<0.30mm	445	32%	1%	33%	148		
0.30mm≦T<0.40mm	430	12%	13%	24%	104	4%	15
0.40mm≤T<0.60mm	410	6%	22%	28%	114	96%	395
Base Size(1.0mm)	380					40.00	3.7
	1	65%	35%	100%	435	100%	410



1.2.3 Cost of Sales

Each unit price and cost of utility for calculation is estimated as follows. This estimation is made based on the results of the site survey.

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(1) Valuable cost

1) Material cost

It is necessary to import hot coils as materials for the new cold rolling mill. The purchase price of hot coils is estimated by the base price with the extra price for each thickness. The base and extra price used in the estimation is complemented by the data surveyed in Japan because it is difficult to get the sufficient data for estimation of hot coil price in Viet Nam due to its small market. Because the margin of products changes, it is estimated, with some allowance taken into consideration, to be a little less by SUS\$ than that obtained. The purchase price of hot coils is shown in Table VI-1-3.

TableVI-1-3 Material Price

/ ¥	т		٠		ሑ	/ t)	
11	- 1	n	1	1.	٦.	/1	ı
٠.	_	11		١.	w	, ı	,

			$Om(\phi/i)$
Size Mix	Price	Price P/C	
	(a)	(b)	(a×b)
1.2mm	303	0%	0
1.6mm	288	13%	38
1.8mm	288	34%	98
2.0mm	283	51%	143
3.2mm	282	2%	5
Base Size(5.0mm)	280		
		100%	285

Base 285 +5\$/t Final 290

2) Cost of transportation

Based on the site survey, the transportation cost is estimated to be 6\$ per ton for transportation of hot coil.

3) Other material cost

For materials, the prices of which have been clarified at the site survey, the domestic price is adopted for this F/S. On the other hand, for materials, the prices of which have not been clarified, the prices generally used in Japan are adopted. The prices are shown in Table VI-1-4.

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TableVI-1-4 Unit Price of Materials

Items	Unit Price	Import or domestic procurement
HCL	1,650,000 VND/t	Domestic
Acid inhibitor	6.2 \$/kg	Imported
Orso sodium silicate	0.2 \$/kg	Imported
Lubricants	2.1 \$/kg	Imported
Rust prevention oil	0.7 \$/kg	Imported
Packing	1.7 \$/kg	

4) Utility cost

The unit price of each utility obtained at the site survey is shown in Table VI-1-5.

TableVI-1-5 Unit Price of Energy

Items	Unit Price	Import or domestic	
		procurement	
Electricity	770 VND/kwh	Domestic	
Gas	4,700 VND/kg	Domestic	
Heavy oil	1,930 VND/kg	Domestic	
Nitrogen	0.5 \$/Nm ³	Domestic	
Water	4,140 VND/m ³	Domestic	

5) By-product and others

The prices of by-products obtained at the site survey and other costs generated in the mill are shown in Table VI-1-6.

TableVI-1-6 Unit Price of By-Product, etc

Items		Items Unit Price	
By-Products	Scale	50.0 \$/t	Domestic price
	Scrap	125.1 \$/t	Domestic price
Roll	Work Roll	3.8 \$/kg	General price
	Back Up Roll	3.4 \$/kg	General price
Other	variable	**************************************	10% of Utility cost

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(2) Fixed cost

1) Labor cost

The salary or wage of labor is estimated for each qualification based on the result of the site survey of steel industries in Viet Nam and the data from VSC. The labor cost includes not only the salary but also the welfare cost which is to be shared by the company. The welfare cost is estimated to be equivalent to 2 month salaries. The labor cost is shown in Table VI-1-7.

TableVI-1	-7 La	bor Cost
-----------	-------	----------

	Labor Unit Cost	(Unit:\$/Y	ear/Man)	Labor Total	Labor Cost			
	Salaly or Wage	Welfare	(a)	(b)	(a×b)			
General Manager	5,800	. 967	6,767	2	13,533			
Manager	4,200	700	4,900	20	98,000			
Engineer	3,300	550	3,850	8	30,800			
Foreman	2,400	400	2,800	16	44,800			
Skilled Worker	1,800	300	2,100	279	585,900			
Unskilled Worker	1,200	200	1,400	75	105,000			
Total				400	878,033			

2) Maintenance cost

Based on the other similar projects, the maintenance cost is estimated to be 0.75% of the total equipment cost.

3) Land lease cost

The land lease cost for the new cold rolled mill is obtained from the land lease fee given by VSC (1.4\$ / sqm / year). The equipment cost for 110kv power supply is added to the land lease fee. The total land lease cost is calculated as follows.

Area(a)	$350 \text{ m} \times 450 \text{ m} = 157,500 \text{ m}$
Unit cost(b)	1.4 \$/m/Year
Land lease(c=a×b)	$1.4 \ \times \ 157,500 \ \text{m} = 220,500 \ \text{USD/Year}$
Cost for changing o	f 110Kv cable(d) 31,991 USD/Year
Total lease fee(c+d)	252,491 USD/Year

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4) Depreciation

In Viet Nam, a fixed installment method is used for the depreciation in accounting. The depreciation is calculated based on the depreciation period of each asset. The depreciation period of each asset is shown in Table VI-1-8.

Table VI-1-8 Depreciation Period

Items	Period
Machine	10
Computer	8
Civil & Building	20
Amortization	5

5) Amortization of deferred assets

The interest in construction and expenses not included in the fixed assets of the initial investment are amortized in 5 years after the start-up of the operation.

1.2.4 Sales and General Administrative Expenses

Based on the other similar projects, sales and general administrative expenses are estimated to be 1.5% of total sales.

1.2.5 Tax and Duties

1) Rate of taxation

Income tax

25%

V.A.T.

5%

2) Loss carried forward: 5 years

1.3 Precondition for Cash Flow and Balance Sheet

1.3.1 Timing and Amount of Total Demand of Funds

The amount of the total demand of funds for this investment is estimated in Chapter V-11, and the timing and methods for fund raising are estimated as follows.

(1) Timing of fund raising

Timing of fund raising in the initial investment shown in Table VI-1-9 is estimated for each item according to the construction schedule.

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TableVI-1-9 Timing of Fund Raising

(Unit:mil\$)

	Total				
		2001	2002	2003	2004
Civil & Building	22.2	0.0	22.2	0.0	0.0
Equipments	78.1	6.4	39.6	27.8	4.3
Others	15.7	1.9	0.3	9.2	4.3
Interest	12.0	0.3	2.8	9.0	0.0
Total	128.0	8.6	64.8	45.9	8.6
		6.7%	50.6%	35.9%	6.8%

(2) Method of fund raising

Financial Analysis is calculated for several cases which use different methods of fund raising. Methods of fund raising used as the precondition of calculation are shown in TableVI-1-11. The basic idea and advise in selection of methods of fund raising are mentioned in ChapterVI-3.

1.3.2 Working Capital

Working capital is estimated as Table VI-1-10.

TableVI-1-10 Working Capital

Ite	ems	Assumption							
Cash & Dep	oosit	10% of one month amount of sales as minimum level							
Account rec	ievable	one month amount of sales							
Inventory	Material	20day amount of materials based on the capacity of material yard							
	Product	10day amount of products based on the capacity of product yard							
Account pay	yable	one month amount of material							

1.4 Results of Financial Analysis

1.4.1 Precondition of Financial Analysis

Four cases (Base case and Alternatives 1,2 and 3) with the said preconditions are studied for the purpose of financial analysis. Alternative 2-A is added with the detailed condition provided by VSC which is concerned with the fund raising in Buyer's credit. These five cases are shown in Table VI-1-11, and the result of the calculation (P/L C/F B/S) in Table VI-1-18. Net present value (NPV) in Table VI-1-16 is calculated by using the discounted rate equal to the center value of hurdle rate of 10.3% which is described later.

Judging from the results of calculation, it is realized that the financial problems that should be

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Judging from the results of calculation, it is realized that the financial problems that should be solved are still remained. To solve these problems, three more cases with different conditions are studied, the conditions of which are also shown in Table VI-1-11.

1)Alternative 3A: Terms of repayment is extended to 12 years from 10 years with other

conditions same as Alternative 3.

2)Alternative 3B: Equity capital is increased up to 30 million US\$ from 10 million

US\$ with other conditions same as Alternative 3.

3)Alternative 3C: Total investment is reduced by 10% with other conditions same as

Alternative 3. This alternative case 3C is studied according to the request from VSC to evaluate the effect of the reduction in investment

cost.

1.4.2 Result of Calculation for Profit and Loss

The result of calculation for profit and loss for each case is shown in Table VI-1-12.

Table VI-1-12 Results of Profit & Loss Calculation

	Profit	& Loss
	Making profit firstly	Clearing camulative deficit
Base Case	6th project year	12th project year
Alternative 1	7th project year	15th project year
Alternative 2	6th project year	14th project year
Alternative 3	6th project year	11th project year

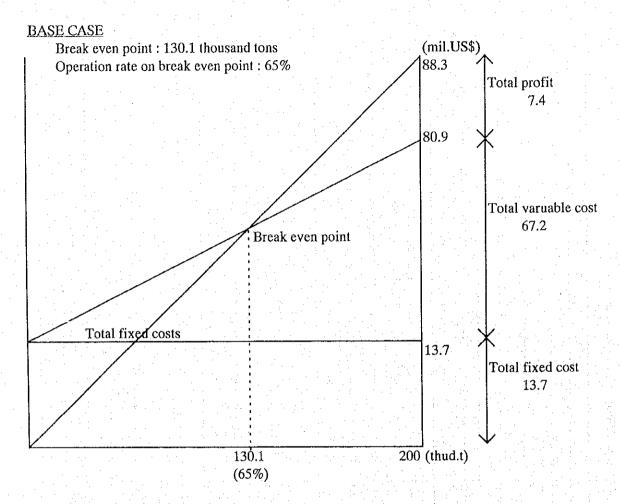
1.4.3 Break Even Point Analysis

Break even point analysis is shown in Fig. VI-1-1.

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TableVI-1-11 Preconditions for Financial Analysis

ital	Source of Fund Rasing				Total capital cost loaned in domestic funds(by Development Fund)	Refinance annually	Total capital cost loaned in domestic funds(by Development Fund)	Refinance annually	t Equipment cost loaned in foreign funds (by Buyer's Credit)	t Total capital cost loaned in domestic funds(by Development Fund)	Refinance annually	Equipment cost loaned in foreign funds (by Buyer's Credit)	Total capital cost loaned in domestic funds(by Development Fund)	Refinance annually	Total capital cost loaned in domestic funds(by Development Fund)	Refinance annually		t Total capital cost loaned in domestic funds(by Development Fund)	Refinance annually	t Total capital cost loaned in domestic funds(by Development Fund)	Refinance annually	t Total capital cost loaned in domestic funds(by Development Fund)	Refinance annually (10% cut of total investment cost)
Loan Capital		Type of	Repayment		Annuity repayment	Single repayment	Annuity repayment	Single repayment	Annuity repayment	Annuity repayment	Single repayment	Equal installment	Annuity repayment	Single repayment	Annuity repayment	Single repayment		Annuity repayment	Single repayment	Annuity repayment	Single repayment	Annuity repayment	Single repayment
	ition	Loan period	Repayment periods		7 years	1 year	7 years	1 year	10 years	7 years	1 year	10 years	7 years	l year	7 years	1 уеат		9 years	l year	7 years	1 year	7 years	1 уеаг
	Loan Condition	1	Grace		3 years	ŀ	3 years	•	3 years	3 years		3 years	3 years	•	3 years			3 years	1	3 years	ı	3 years	1
		Rate			7.50%	10.20%	7.50%	558.9 10.20%	10.20%	7.50%	10.20%	10.45%	7.50%	10.20%	7.50%	10.20%		7.50%	10.20%	7.50%	10.20%	7.50%	10.20%
		Amount	(mil.US\$)		128.0	305.0	129.8	558.9	66.4	64.9	401.3	47.4	86.9	485.2	116.3	127.3		116.3	0.5	93.8		103.0	8.8
					L-T Loan	S-T Loan	L-T Loan	S-T Loan	L-T Loan		S-T Loan	L-T Loan		S-T Loan	L-T Loan	S-T Loan	AENT]	L-T Loan	S-T Loan	L-T Loan	S-Т Loan	L-T Loan	S-T Loan
,	Equity	- 			None		None		None			None			10million\$		IMPROVEN	10million\$	·	30million\$		10million\$	
	Product	VIII.		I NOILL	Case1		Case1-1		Case1			Case1			Case1		DITION for	Case1		Casel		Case1	
				NOILL CONDITION	Base Case		Alternative1		A)ternative2			Alternative2A	(by VSC)		Alternative3		[OTHER CONDITION for IMPROVEMENT]	Alternative 3A		Alternative 3B		Alternative 3C	



Break even point of	each case /	each year
---------------------	-------------	-----------

	Calend	der Year	2009	2013	2018	2023	Average
BASE CASE	B.E.P.	1000t	178.1	151.1	40.0	40.0	130.1
1 1 2 3 3 1 1	O.R.	%	87%	74%	20%	20%	65%
Alternative 1	B.E.P.	1000t	205.3	189.5	63.5	43.8	154.8
	O.R.	%	100%	92%	31%	21%	77%
Alternative 2	B.E.P.	1000t	196.9	169.2	42.8	40.0	144.1
	O.R.	%	96%	83%	21%	20%	72%
Alternative 3	B.E.P.	1000t	159.8	122.2	40.0	40.0	116.4
	O.R.	%	78%	60%	20%	20%	58%

Fig.VI-1-1 Profit-loss Break Even Point Analysis

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1.4.4 Financial Internal Rate of Return (FIRR) and Sensitivity Analysis

The result of financial internal rate of return is shown in Table VI-1-13, and the result of sensitivity analysis by changing the significant factors for the feasibility is shown in Table VI-1-14.

TableVI-1-13 Results of Calculation of IRR

	IRR		Demand for funds in operation
	Before tax	After tax	
Base Case	10.78%	10.32%	Neccesary for refinacing short term loan annually from 1st project year to 12th project year
Alternative I	9.42%	9.05%	Neccesary for refinacing short term loan annually from 1st project year to 15th project year
Alternative 2	10.46%	10.01%	Neccesary for refinacing short term loan annually from 1st project year to 14th project year
Alternative 3	10.95%	10.49%	Neccesary for refinacing short term loan annually from 1st project year to 10th project year

Table VI-1-14 Sensitivity Analysis

		-10%	-5%	Base Case	5%	10%
	·					
Duty	Base Case		7.49%	10.78%	13.69%	
	Alternative 1		5.77%	9.42%	12.59%	
	Alternative 2		7.21%	10.46%	13.34%	
	Alternative 3	are and the	7.64%	10.95%	13.88%	
				Barra de la Cal		
Investment	Base Case	12.31%	11.52%	10.78%	10.10%	9.47%
	Alternative 1	10.88%	10.12%	9.42%	8.77%	8.16%
	Alternative 2	11.97%	11.18%	10.46%	9.78%	9.15%
24.14.145	Alternative 3	12.49%	11.69%	10.95%	10.26%	9.62%
				The second		
Sales Price	Base Case	8.77%	9.80%	10.78%	11.72%	12.64%
	Alternative 1	7.33%	8.40%	9.42%	10.40%	11.34%
	Alternative 2	8.47%	9.48%	10.46%	11.39%	12.30%
	Alternative 3	8.93%	9.96%	10.95%	11.90%	12.82%

1.4.5 Conclusion of Financial Analysis

(1) Feasibility study

It is a common practice to compare the internal rate of return to the hurdle rate for the evaluation of the feasibility of the project. The hurdle rate is obtained by risk premium in addition to cost of capital, and the cost of capital is obtained by the weighed mean value of cost of equity and that of debt. In this F/S, the cost of capital is assumed by the following equation.

1) Cost of capital = $7.5\% \times (1-0.25) \times 100\% = 5.6\%$

	Interest rate	Weight
Cost of equity	0	0%
Cost of capital	7.5%×(1-0.25)	100%

The risk premium is assumed as follows;

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- 2) Financial risk = Increase of interest rate up to 10% from 7.5% $2.5\% \times (1-0.25) \times 100\% = 1.9\%$
- 3) Business risk 3-1) variation of IRR for 20% change of sales price = $0\% \sim 4.0\%$ 3-2) variation of IRR for 10% change of total investment cost = $0\% \sim 1.5\%$

Based on the above calculation, the value of the hurdle rate is assumed to be 7.5% to 13.0%, which is obtained by summing up the above 1), 2) and 3).

The values of IRR for all cases exceed the minimum value of 7.5%, which means that this project is feasible in total investment cost. On the other hand, the values of IRR for all cases do not exceed the maximum value of 13.0%, which means that this project is not always feasible with the variation in sales price and in total investment cost taken into consideration. As a conclusion, this project can be considered feasible, but with a certain risk becoming unfeasible depending on the variation of condition such as sales price and total investment cost.

(2) Situation of fund raising

As shown in TableVI-1-15, all cases need refinancing of short term loan yearly for more than 10 years. This means the free cash flow in normal operation is short in covering repayments of the initial investment and the interest.

There are three reasons for this financial deficit. Firstly the margin of sales is too small, secondly the term of repayment is too short, and thirdly the low equity capital ratio increases the cost of capital.

According to the result of sensitivity analysis, the increase of sales price is certain to improve the cash flow in operation extremely. However, the increase of product margin more than that of the precondition is not realistic.

Table VI-1-15 Comparison of Short Term Loan of Each Case

(Unit: Million\$) Total | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 - 23 Calendar Year Project Year 11 12 13 14 16-20 305.0 2.3 Base Case 5.3 11.1 18.0 25.5 33.9 43.1 51.6 48.8 36.9 22.3 6.2 0.0 0.0 0.0 0.0 3.5 16.3 25.6 35.9 47.2 59.7 71.7 72.5 64.8 54.6 43.3 30.9 Alternative 1 558.9 8.4 18.8 5.6 0.0 3.9 5.9 10.7 16.5 22.9 29.9 37.7 46.2 53.9 53.5 36.7 23.8 Alternative 2 401.3 50.0 9.6 0.00.0 485.2 8.4 13.6 20.5 28.3 36.4 44.7 53.5 61.0 63.2 45.7 31.3 17.9 0.0 Alternative 2A 57.6 3.2 1.2 8.3 12.7 17.5 22.8 28.6 Alternative 3 127.3 0.0

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It can be said as a conclusive remark that conditions of fund raising are not satisfactory although there certainly exists the return on investment.

(3) Case study on other conditions

According to the results of analysis for the said basic conditions, three more cases are studied to improve the situation of fund demand and supply. The conditions, the results of calculation of IRR and the amount of short and long term loan are shown in Table VI-1-16. The flow of short term loan is shown in Table VI-1-17, and the detailed results (P/L, C/F, B/S) are also shown in Table VI-1-18.

Table VI-1-17	Comparison of Short Term	Loan for Additional Cases
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		1 .												٠.	(U	lnit : l	Million\$)
Calendar Year	Total	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019-23
Project Year		1	2	3	4	5	6	.7	8	- 9	10	11	12	13	14	15	16-20
			87.3	7.													
Alternative 3A	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alternative 3B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			1.4									1 .					
Alternative 3C	8.8	0.0	0.0	0.0	0.0	0.6	1.6	2.7	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(4) Conclusion

It is necessary for the realization of this project to solve the following issues.

- 1) To make profits constantly
- 2) To keep balance of the fund demand and supply

To solve the above issues, "Alternative 3A" is highly recommended, in which the project becomes more feasible and realistic. At this case the fund except the equity capital is raised in domestic totally and the period of the repayment is 12 years. Accordingly, the following conditions are strongly recommended to be satisfied;

- 1) Increase of equity capital over 10 million \$
- 2) Fund raising in domestic for investment (for example, Development funds) and the extension of the period of repayment from 10 years to 12 years
- 3) Realization of 5% import duty for cold rolled products

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Table VI-1-16 Case Study of Each Additional Case

				d by 10%.
Demand for fund in operation		Equity capital is 10 mil.US\$, and loan period is extended up to 12 years Short term loan is necessary in the first project year. After 2nd project year, funds from operation cover the demand for working capital and financial expense. Contents of fund raising Source of fund Amount Rate Condition of loan Equity 10 Mil.US\$ L.T.loan 116.3Mil.US\$ 10.20% Only first project year	The equity capital is 30 mil.US\$, and the loan period is for 10 years Short term loan for operation is not required. Contents of fund raising Source of fund Amount Rate Condition of loan Equity 30Mil.US\$ L.T.loan 93.8Mil.US\$ No loan	The loan period is 10 years, the equity capital is 10 mil.US\$, and total investment is reduced by 10%. Only a small amount of short term loan for operation is required. Contents of fund raising Source of fund Amount Rate Condition of loan Equity 10Mil.US\$ L.T-loan 103Mil.US\$ 10.20% 5th-8th project year
P/L (Project year)	Clearing cumulative deficit	10th year	8th year	8th year
P/L (Pro	Making profit firstly	6th year	6th year	6th year
R	After tax	10.38%	10.41%	11.74%
IRR	Before	10.95%	11.20%	12.50%
		Alternative 3A	Alternative 3B	Alternative 3C

Table VI-1-18 Net Income statement (Alternative 3A <Recommended Plan>)

														٠.	: -								
Calendar Year Project Year	2001	2001 2002 2003 -3 -2 -1	2003	2004	2005		2007	2008	2009	2010	2011 8	2012 9 100%	2013 10	2014 11	2015 2 12 12 1	2016 2 13 100% 10	2017 2 14 100% 14	2018 2 15 100% 16	2019 2 16 100% 10	2020 2 17 100% 14	2021 2 18 100% 10	2022 2 19 19 10 10 10 10 10 10 10 10 10 10 10 10 10	2023 02 02 10.50
Capacity utilization(%)					20%			·				1				٠.	1 .	4	٠.	•	4	4	e t
Sales Revenue	0.0	0.0	0.0	52.9	80.9	90.5	90.7	20.7	90.7	90.7	90.7	90.7	90.7	7.06	90.7								7.06
Total Income (a)	0.0	0.0	0.0	52.9	80.9	90.5	90.7	90.7	7.06	7.06	90.7	7.06	20.7	706	90.7	7.06	90.7	7.06	90.7	90.7	20.7	90.7	90.7
Materials Othor Variable costs	0.0	0.0	0.0	35.0	55.7 4.9	63.2	5.5	63.7	63.7 5.5	63.7	63.7 5.5	5.5	5.5	5.5	63.7	63.7 5.5	63.7	63.7	63.7	5.5	63.7	63.7 6	63.7
Less Variable costs (b)	0.0	0.0	0.0	38.3	9.09	68.7	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	2.69	69.2	69.2	69.2 (69.2	69.2
VARIABLE MAEGIN (c=a-b)	0.0	0.0	0.0	14.6	20.2	21.8	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
Production fixed cost Depreciation & Amortization General administration expence	0.0	0.0	0:0	1.5 13.3 0.8	13.3	13.3	13.3	1.7 13.3 1.4	1.7	1.7 7.7 4.1	7.7 7.7 4.1	1.7	1.7	1.7	1.7	1.7	1.1	1.7	117	1.7	1.7	1.7	1.7
Less Fixed costs (d)	0.0	0.0	0.0	15.5	16.2	16.4	16.4	16.4	10.8	10.8	10.8	10.8	10.8	2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4 G
OPERATIONAL MARGIN (e=c-d)	0.0	0.0	0.0	-0.9	4.1	5.4	5.1	5.1	10.7	10.7	10.7	10.7	10.7	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
Long term loan interests Short term Loan & Deposit interests	0.0	0.0	0.0	10.8	10.8	10.4	9.7	8.9	0.0	5.1	4.1	3.0	1.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less Finance costs (f)	0.0	0.0	0.0	10.8	10.8	10.4	9.7	8.9	6.0	5.1	4.1	3.0	1.9	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GROSS PROFIT (g=c-f)	0.0	0.0	0.0	-11.7	-6.8	-5.0	4.6	-3.8	4.7	5.6	9.9	7.7	8.8	16.6	17.2	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
(Loss Forward) (Taxable Income)	(0.0)	(0.0)	(0.0)	(0.0) (-11.7) (-18.5) (-23.5) (0.0) (0.0) (0.0) (0.0)	(0.0)		(-28.0) (- (0.0)	(-31.9)	(-27.2) (-	(-21.5) (- (0.0)	(-14.9) ((-7.2) (0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)) (0.0) (8.6) (1	(0.0) (17.3)	(0.0) (17.3)	(0.0) (0.1) (17.3) (1°	(0.0) (17.3) (17.3)	(0.0)
Income Tax (h)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	4.3	4.3	4.3	4.3	6.3
NET PROFIT AFIER TAX (g-h)	0.0	0.0	0.0	-11.7	-6.8	-5.0	4.6	-3.8	4.7	5.6	9.9	7.7	8.8	16.6	15.1	15.1	15.1	15.1	13.0	13.0	13.0	13.0	13.0
RATIOS									*														
Gross Profit / Sales Net Profit after tax / sales				-22% -22%	8 8 8 8	%9- -6%	-5% -5%	4 4 8 8	5%	%9 %9	7%	8%	10% 10%	18% 18%	19% 17%	19% 1 17% 1	19% 1 17%]	19% 1 17% 1	19% 1 14% 1	19% 1 14% 1	19% 1 14% 1	19% 1 14% 1	19% 14%
										4,							. * * * * * * * * * * * * * * * * * * *				[\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Page VI-1-15	[]

Table VI-1-18 Cash Flow (Alternative 3A <Recommended Plan>)

TableVI-1-18 Balance Sheet (Alternative 3A <Recommended Plan>)

	2001	2002	2003	2004	2004 2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Calendar Fear Project Year Capacity utilization(%)	.	7	7	1 60%	2 30%		4 100%	5 100%	6 100%	7	8	9 100%	100%		12 100%	13	14 100% 1	15	16 100%	17	18	19 100%	20 100%
ASSETS	Ċ	0	G C	0.4	-	2.1	23	2.4	2.6	2.8	3.0	3.2	3.4	13.3	28.3	44.5	60.7	77.0		105.2		33.3	147.4
Cash in nand Accounts Receivable	00	0.0		4.4	6.7	7.5	7.6	7.6	7.6	7.6	7.6	7.6	2.6	2.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
Other Liquid assets	0.0	0.0		1.9	2.8	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1		3.1		3.1	3.1
Finished products (a)	0.0	0.0	0.0	1.1	1.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9		1.9		5	1:9
Raw materials & supplies (b)	0.0	0.0	0.0	2.1	3.1	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	ω Ω	3.5	3.5		3.5		ر در د	5.5
Total Inventories (a+b)	0.0	0.0	0.0	3.2	4.9	5.4	5.4	4.	4.	5.4	5.4	5 4	5.4	5.4	5.4	5.4	5.4	5. 4. :		4.2		4	4,
Total Current Assets (A)	0.0	0.0	-0.0	6.6	16.0	18.2	18.4	18.6	18.7	18.9	19.1	19.3	19.5	29.5	44.4	60.6	76.9	93.1	107.2	121.3	35.4	149.4	163.5
Fourinment & Buildings	83	70.3	107.3	102.7	89.4	76.1	62.8	49.5	41.8	34.1	26.4	18.8	11.1	10.0	8.9	7.8	6.7	5.5	4.4	3.3	2.2		0.0
Amortization	0.0	23	10.4	8.3	6.3	4.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Bived Accore (R)	ox ox	727	1177	111.0	9 56	80.3	64.9	49.5	81.8	34.1	26.4	18.8	11.1	10.0	8.9	8,	6.7	5.5	4.4	3,3	2.2	I	0.0
(a) thought the transfer	}																						
TOTAL ASSETS (A+B)	8.3	72.7	117.7	120.9	111.6	98.5	83.3	68.1	9.09	53.1	45.5	38.1	30.6	39.4	53.2	68.4	83.5	98.7	111.6	124.6	37.6	50.6	163.5
							-					•											
LIABILITIES & EQUITY	(•	r v	Ç			Ç	Ü	,	2	(·	0	٠ د		(* V		() ()	ď	" V	۲۰ در
Accounts, rayable Other current lightities	2 0	000	2 0	7.6	1 4 0 C	4 2	. 4 . 2	. 4 . 5	4.5	. 4 . 2	. 4 . 3		4.5	, 4 , 5	. 4 . 2	. 4 . 2	, 4 , 7,	, 4 ; 5	4 i vi	, 4 ; 3	4.5	. 4 . 5	. 4. 5.
Short term loan	0.0	0.0	0.0	0.5	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0:0	0.0	0.0	0.0	0.0
Total current liabilities	0.0	0.0	0.0	6.3	8.8	÷	9.8	8.6	9.8	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
Long term loan	0.0	62.6	107.6	62.6 107.6 116.3 111.2	111.2	102.0	91.4	80.0	67.8	54.6	40.5	25.3	0.6	1.3	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Fixed liabilities	0:0	62.6	107.6	116.3	1111.2	102.0	91.4	80.0	67.8	54.6	40.5	25.3	0.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
							į							-					٠				
TOTAL LIABILITIES (C)	0.0	62.6	107.6	122.6	120.0	111.8	101.2	6.68	77.6	64.5	50.4	35.2	18.8	11.1	8.6	8.6	8.6	8.6	8.6	9.8	8.6	8.6	8.6
Capital Stock	8.3	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
Retaianed Profit	0.0	0.0	0.0	-11.7	-18.5	-23.5	-28.0	-31.9	-27.2	-21.5	-14.9	-7.2	1.6	18.2	33.3	48.4	63.6	78.7	61.7	104.6			143.6
- 1																		- 1	-	- 1			
TOTAL EQUITY (D)	8.3	10.1	10.1	-1.6	8.4	-13.3	-17.9	-21.7	-17.0	-11.4	8.7	2.9	11.7	28.3	43.4	58.5	73.7	88.8	101.8	114.8	127.7	140.7	153.7
TOTAL LIABILITIES & EQUITY (C+D)	8.3	72.7	117.7	120.9	111.6	98.5	83.3	68.1	9.09	53.1	45.5	38.1	30.6	39.4	53.2	68.4	83.5	98.7	111.6	124.6	137.6	50.6	163.5
]							ĺ						İ				

2023 20 100%	200.7	90.7	63.7	69.2	21.5	1:1	4.2	17.3	0.0	0.0	17.3	(0.0)	4 ئ	13.0	19%	, <u>∞</u>
2022 19 100%	90.7	90.7	63.7	69.2	21.5	1.1	4.2	17.3	0.0	0:0	17.3	(0.0)	4.3	13.0	19% 14%	Page VI-I-I
2021 18 100%	200.7	90.7	63.7	69.2	21.5	1.7	4.2	17.3	0.0	0.0	17.3	(0.0)	4.3	13.0	19%	<u> </u>
2020 17 100%	200.7	90.7	63.7	69.2	21.5	117	4.2	17.3	0.0	0.0	17.3	(0.0)	4.3	13.0	19%	
2019 16 100%	90.7	20.7	63.7	69.2	21.5	1.1	4.2	17.3	0.0	0.0	17.3	(0.0)	2.2	15.1	19%	
2018 15 100%	90.7	20.7	63.7	69.2	21.5	1.7	4.2	17.3	0.0	0.0	17.3	(0.0)	2.2	15.1	19% 17%	
2017 14 100%	20.7	20.7	63.7	69.2	21.5	1.7	4.2	17.3	0.0	0.0	17.3	(0.0)	2.2	15.1	19%	
2016 13 100%	90.7	90.7	63.7	69.2	21.5	1.7	4.2	17.3	0.0	9.0	16.7	(0.0)	2.1	14.6	18%	-
2015 12 100%	90.7	200.7	63.7	69.2	21.5	1.7	4.2	17.3	2.3	2.3	15.0	(0.0)	0.0	15.0	17%	
2014 11 100%	200.7	200.7	63.7 5.5	69.2	21.5	1.7	4.2	17.3	3.8	3.8	13.5	(0.0)	0.0	13.5	15%	
2013 10 100%	90.7	90.7	63.7	69.2	21.5	1.7	10.8	10.7	9.1	5.1	5.7	(-18.8)	0.0	5.7	%9 9	
2012 9 100%	20.7	200.7	63.7	69.2	21.5	1.7	10.8	10.7	6.8	6.1	4.6	(0.0)	0.0	4.6	5%	
2011 8 100%	90.7	200.7	63.7	69.2	21.5	1.7	10.8	10.7	2.3	6.7	4.0	(0.0)	0.0	4.0	4 4 % %	
2010 7	200.7	20.7	63.7	69.2	21.5	1.7	10.8	10.7	3.9	7.3	3.4	(-33.1) (0.0	3.4	4 4 % %	
2009 6 100%	90.7	90.7	63.7	69.2	21.5	1.7	10.8	10.7	5.3	7.9	2.8	(-36.5)	0.0	2.8	3%	
2008 5 100%	90.7	90.7	63.7	69.2	21.5	1.7	16.4	5.1	9.0	10.8	-5.7	(-39.3)	0.0	-5.7	%9- %9-	
2007 4 100%	90.7	90.7	63.7	69.2	21.5	1.7	16.4	5.1	10.2	11.4	-6.2	(0.0)	0.0	-6.2	-7% -7%	
2006 3 100%	90.5	90.5	63.2	68.7	21.8	1.7 13.3 1.4	16.4	5.4	11.3	11.8	-6.4		0.0	-6.4	7%	
2005 2 90%	80.9	80.9	55.7	9.09	20.2	13.3	16.2	4.1	11.9	12.2	-8.1	(0.0) (0.0) (-12.9) (-21.0) (-27.4) (0.0) (0.0) (0.0) (0.0)	0.0	-8.1	-10%	
2001 2002 2003 2004 -3 -2 -1 1 60%	52.9	52.9	35.0	38.3	14.6	1.5 13.3 0.8	15.5	-0.9	12.0	12.0	-12.9	(-12.9)	0.0	-12.9	-24% -24%	
2003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	0.0	0.0		
2002	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	0.0	0.0		
2001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	0.0	0:0		
Calendar Year Project Year Capacity utilization(%)	Sales Revenue	Total Income (a)	Materials Other Variable costs	Less Variable costs (b)	VARIABLE MAEGIN (c=a-b)	Production fixed cost Depreciation & Amortization General administration expence	Less Fixed costs (d)	OPERATIONAL MARGIN (c=c-d)	Long term loan interests Short term Loan & Deposit interests	Less Finance costs (f)	GROSS PROFIT (g=e-f)	(Loss Forward) (Taxable Income)	Income Tax (h)	NET PROFIT AFTER TAX (g-h)	RATIOS Gross Profit / Sales Net Profit after tax sales	

2021 2022 2023 18 19 20 100% 100% 100%	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.09 7.09 7.09 7.09 7.09 7.09	4.5	95.2 95.2 95.2	0.0 0.0 0.0 3.1 3.1 3.1 72.3 72.3 72.3 4.3 4.3 4.3	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	81.2 81.2 81.2	14.1 14.1 14.1	18.4 18.4 18.4	14.1 14.1 14. 14. Page VI-1-19
2020 20 17 100% 10	0.0	90.7 9		95.2	3.1 72.3 1.4	0.0	0.0	81.2	14.1	18.4	14.1
2019 2 16 100% 1	0.0	90.7	4.5	95.2	0.0 3.1 72.3 2.2 1.4	0.0	0.0	79.0	16.2	18.4	16.2
2018 15 100%	0.0	90.7	4.5	95.2	0.0 3.1 72.3 2.2 1.4	0.0	0.0	79.0	16.2	18.4	16.2
2017 14 100%	0.0	90.7	4.5	95.2	3.1 3.1 72.3 2.2 1.4	0.0	0.0	79.0	16.2	18.4	16.2
2016 13 100%	0.0	90.7	4.5	95.2	3.1 72.3 2.1 1.4	0.0	0.0 6.2 6.2	85.7	9.5	18.4	16.3
2015 12 100%	0.0 0.0 6.2 6.2	90.7	4.5	101.4	3.1 72.3 0.0 1.4		0.0 22.3 22.3	101.4	0.0	18.4	18.4
2014 11 100%	0.0 0.0 22.3 22.3	90.7	4.5	117.5	0.0 3.1 72.3 0.0		0.0 36.9 36.9	117.5	0.0	18.4	18.4
2013 10 100%	0.0 0.0 36.9 36.9	90.7		132.2	0.0 3.1 72.3 0.0	1	1.5 48.8 50.3	132.2	0.0-	18.4	18.4
2012 9 100%	0.0 0.0 48.8 48.8	100		144.0	0.0 3.1 72.3 0.0		9.5 51.6 61.1	144.0	-0.0	18.4	18.4
2011 8 100%	0.0 0.0 51.6 51.6		1 . 1	146.9	0.0 3.1 72.3 0.0 1.4		20.2 43.1 63.3	146.9	0.0	18.4	18.4
2010 7 100%	0.0 0.0 43.1 43.1			138.3			20.3 33.9 54.2	138.3	-0.0	18.4	18.4
2009 6 100%	0.0 0.0 33.9 33.9		ł	129.1	0.0 3.1 72.3 0.0 1.4		18.9	129.1	0.0	18.4	18.4
2008 5 100%	0.0 0.0 25.5 25.5				1 1 1 1		17.6 18.0 35.5	120.8	0.0	18.4	18.4
2007 4 100%	0.0 0.0 18.0 0.81	90.7	4.5	113.2	0.0 3.1 72.3 0.0		16.3 11.1 27.4	113.2	0.0	18.4	18.4
2005 2006 2 3 90% 100%	0.0	and the state of		105.2	1 1 1 1	8.9 0.5 9.4	14.3 5.3 19.6	105.1	0.1	17.9	17.9
2005	0.0 0.0 5.3		0.8/	87.9	0.0 63.6 0.0 0.0	9.5 0.2 9.8	8.4 2.3 10.7	87.7	0.2	15.0	15.0
2004 1 60%	0.0 8.6 2.3	48.5	2.6	62.1	8.6 1.9 40.6 0.0	9.6 0.0 9.6	1.0	61.7	0.4	-0.7	-0.7
2003	0.0	000	0.0	45.9	0.0	0.0	0.0	45.9	0.0	-64.8 -45.9	45.9
2002	0.0 0.0 8.4.8	0.0	0.0	84.8	0.0	2.8	0.0	64.8	0.0	-64.8	-64.8
2001	0.0	0.0	0.0	9.8	8.3	200 200 200 200 200 200 200 200 200 200	0.0	8.6	0.0	8.6	φ. φ.
					(6)					ax) [a-b-c] 10.78%	NPV:3.8 ⟨x⟩ [a-b-c-d] 10.32% NPV:0.2
Calendar Year Project Year Capacity utilization(%)	Equity Long term loan Short term loan	Total inflow of Funds Sales revenue	Total Inflow of Operation (a)	TOTAL CASH INFLOW (A)	그 당입	Interest in Long term loan Interest in Short term loan Interest paid	Long term loan repayment Short term loan repayment Loan repayment	TOTAL CASH OUTFLOW (B)	TOTAL CASH FLOW (A-B)	CASH FLOW for IRROI(Before Tax) [a-b-c]	CASH FLOW for IRROI(After Tax)

		-																					
Calendar Year	2001	2002	2003	2004	2002	2006	2007	2008	2009	٠.							2017 20	2018 20	2019 20	2020 2	2021 20	2022 20	2023
Project Year	က္	7	7	, - 4 ;		 	4 5				2008	7000	100%	10.00%	1.2	100% 10			٠.		10	10	3 28
Capacity utilization(%)			٠	%09	%06	100%	100%	100%	100%	7007													3
				. :												-							
ASSETS	(ć	5	0	0	o c	α C	α C	. : C	8	80	0.7	0.7	0.7	10.3	26.5 4	42.8 5	59.0	73.1 8	87.2 10:	101.3 115.3	ű
Cash in hand) ()	0.0	0 6	1		9 0	9 6	0 4) v	2.7	2 4	2 2	7	7.6	7.6	•							9,
Accounts Receivable	0.0	0.0	0.0	4	0	Ç	0.7	0	0.	o	o ,	9 .	? ;	? ;	> +	; ;							· -
Other Liquid assets	0.0	0.0	0.0	1.9	2.8	3.1	3.1	3.1	3.1	31	3.1	T.	 	3.1	5.1	7.5	۲.۶۰		7.7				7 6
Finished products (a)	0.0	0.0	0.0	1.1	1.7	6.1	1.9	1.9	1.9	1.9	6. H	1.9	1.9	6.7	6. ! 6. !	6 I			5 1	y., 6		ا د ا	٠ ر
Raw materials & supplies (b)	0.0	0.0	0.0	2.1	3.1	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	35	3.5	3.5	3.5		3.5	3.5	م		2:
Total Inventories (a+b)	0.0	0.0	0.0	3.2	4.9	5.4	5.4	5,4	5.4	5.4	5.4	5,4	5.4	5.4	4.	5.4		4.2	5.4	5.4 4.	4.		5,4
	٠		- 1		1		٠	:	٠.					٠.	. : :	,					. '		
Total Current Assets (A)	0.0	0.0	0.0	6.6	15.1	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.8	16.9	16.9	26.4	42.6	58.9	75.1	89.2 10	103.3 11	17.4 13	31.5
Paninment & Buildings	83	70.3	70.3 107.3 102.7	102.7	89.4	76.1	62.8	49.5	41.8	34.1	26.4	18.8	11.1	10.0	8.9	2.8	6.7	5.5	4.4	3.3	2.2	1.1	0.0
Amortization	63	3.1	12.0	9 6	7.2	4.8	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
			:															:	. ;				:
Total Fixed Assets (B)	8.6	73.4	119.3	112.3	9.96	80.9	65.2	49.5	41.8	34.1	26.4	18.8	11.1	10.0	8.9	7.8	6.7	5.5	4.4	3.3	22	7	00
									:												١,	Ι,	Е
TOTAL ASSETS (A+B)	8.6	73.4	119.3	122.2	111.7	87.6	82.1	66.4	58.7	51.0	43.3	35.6	27.9	26.8	25.7	34.1	49.3 6	64.4	79.6	92.5 10	05.5 118.	S	131.5
								. :	e e	1	٠												
LIABILITIES & EQUITY			:	٠. '						. •							4		. (,			. (
Accounts Payable	0.0	0.0	0.0	3.2	4.8	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	S.3	53	5.3	5.3 5.3	ες :	5.3	5.3	χ		ر ان د
Other current liabilities	0.0	0.0	0.0	2.6	4.0	4.5	4.5	4.5	4.5	4.5	4 5	5.5	4. S	5.4	4 V.	4 ر در	4 ر د د	4 ر ر ر	4. 0	4 գ Մ գ		4 c	4 c
Short term Joan	0.0	0.0	0.0	2.3	5.3	11.1	18.0	25.5	33.9	43.1	51.6	48.8	36.9	22.3	6.2	0.0	0.0	0.0	0.0	0.0	G		0.
Total current liabilities	0.0	0.0	0.0	8.2	14.1	20.9	27.8	35.4	43.7	52.9	61.5	58.6	46.8	32.1	16.0	8.6	8.6	8.8	8.6	8	8.6	89	رن من
	,	73.7	1103	127.0	118.6	104 3	088	70.4	۶۱۶	31.2	11.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Long term loan	9	73.4	1193	127.0		104.3	88.0	70.4	51.5	31.2	11.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	•	0.0	0.0
				. 4	· N																		ſ
TOTAL LIABILITIES (C)	8.6	73.4	119.3	135.2	132.7	125.2	115.7	105.8	95.2	84.1	72.5	60.1	46.8	32.1	16.0	8.6	8.6	9.8	9.8	9.8	8.6	8.8	8.6
													((•		c		•			6
Capital Stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0))	0.0	0.0	Ċ	-				,	5 '))
Retaianed Profit	0.0	0.0	0.0	-12.9	-21.0	-27.4	-33,6	-39.3	-36.5	-33.1	-29.1	-24.5	-18.8	5.3	9.7	24.3	39,4	54.6	69.7	82.7	95.7 108.	ø	121.6
												. 1						1	1			- [,	
TOTAL EQUITY (D)	0.0	00	0.0	-12.9	-21.0	-27.4	-33.6	-39.3	-36.5	-33.1	-29.1	-24.5	-18.8	5.3	9.7	24.3	39.4	54.6	2 / .69	/.78	95.7 108.		121.6
																	-			ı	Į,	- 1	Г
TOTAL LIABILITIES & EQUITY (C+D)	9.8	73.4	119.3 122.2		111.7	97.8	82.1	66.4	58.7	51.0	43.3	35.6	27.9	26.8	25.7	34.1	49.3	64.4	0.6/	72.5	105.5	118.5 J.5	1313
									1.												L	Dage	٦

Page .

Table VI-1-18 Net Income statement (Alternative 1)

						Table VI	-1-18	Vet Inc	Net Income statement	tement	(Alteri	native 1	_				٠				Ş	(Unit : MillionS)	(\$300
Calendar Year Project Year Capacity utilization(%)	2001	2001 2002 -3 -2	2003	2004	2005 2 90%	2006 3 100%	2007 4 100%	2008 5 100%	2009 6 100%	2010 7 100% 1	2011 8 100% 1	2012 9 100% 1	2013 10 100%	2014 11 100%	2015 12 100% 1	2016 ; 13 100% 1	2017 2 14 100% 1	2018 2 15 100% 10	2019 2 16 100% 10	2020 17 100% 1	2021 : 18 100% 1	2022 19 100% 1	2023 20 .00%
Sales Revenue	0.0	0.0	0.0	55.8	85.2	95.3	92.6	92.6	92.6	92.6	92.6	95.6	92.6	95.6	92.6	92.6	92.6	95.6	92.6	92.6	92.6	92.6	92.6
Total Income (a)	0.0	0.0	0.0	55.8	85.2	95.3	95.6	92.6	92.6	95.6	92.6	92.6	92.6	92.6	92.6	92.6	95.6	95.6	95.6	92.6	92.6	95.6	95.6
Materials Other Variable costs	0.0	0.0	0.0	37.8	60.1	6.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	6.8	68.8	68.8	6.8	6.8	6.8	68.8	6.8	68.8	68.8
Less Variable costs (b)	0.0	0.0	0.0	41.8	66.2	74.9	75.5	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6
VARIABLE MAEGIN (c=a-b)	0.0	0.0	0.0	13.9	19.0	20.3	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Production fixed cost Depreciation & Amortization General administration expence	0.0	0.0	0.00	1.5 13.4 0.8	1.7	1.7	13.4	1.7 13.4 1.4	1.7 7.8 1.4	1.7 7.8 1.4	1.7 7.8 1.4	1.7	7.8	1.7	7.7 1.1 4.1	17	1.1	1.7	1.7	1.7	1.7	1.7	1.1
Less Fixed costs (d)	0.0	0.0	0.0	15.7	16.4	16.6	16.6	16.6	11.0	11.0	11.0	11.0	11.0	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
OPERATIONAL MARGIN (c=c-d)	0.0	0.0	0.0	-1.8	2.7	3.8	3.4	3.4	9.0	9.0	0.6	9.0	9.0	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
Long term loan interests Short term Loan & Deposit interests	0.0	0.0	0.0	12.2	12.1	11.5	10.4	9.1	5.4	3.9	2.4	0.8	0.1	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0
Less Finance costs (f)	0.0	0.0	0.0	12.2	12.5	12.3	12.0	11.7	9.0	8.7	8.5	8.2	7.5	6.6	5.6	4.4	3.2	1.9	9.0	0.0	0.0	0.0	0.0
GROSS PROFIT (g=c-f)	0.0	0.0	0.0	-14.0	8.6-	-8.5	-8.6	-8.3	-0.0	0.3	0.5	6.0	1.5	9.1	10.2	11.3	12.6	13.8	15.2	15.7	15.7	15.7	15.7
(Loss Forward) (Taxable Income)	(0.0)	(0.0)		(0.0) (-14.0) (-23.8) (-32.3) (0.0) (0.0) (0.0)	(0.0)	(0.0)	(0.0)	(-49.2) ((49.3) (0.0)	(-49.0) (- (0.0)	(48.5) (-	(47.6) (-(0.0)	(46.1) ((0.0)	(0.0)	(0.0)	(0.0)) (6.9)	(0.0)	(0.0)	(0.0) (15.7) ((0.0)	(0.0)
Income Tax (h)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.7	1.9	2.0	3.9	3.9	3.9
NET PROFIT AFTER TAX (g-h)	0.0	0.0	0.0	-14.0	-9.8	-8.5	-8.6	-8.3	0.0	0.3	0.5	6.0	1.5	9.1	10.2	11.3	11.0	12.1	13.3	13.8	11.8	11.8	11.8
RATIOS Gross Profit / Sales Net Profit after tax / sales			1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	-25%	-12%	%6- %6-	%6- %6-	%6-	% 0 0 0	%0 %0	1%	1% 1%	2%	10%	11%	12%	13% 12%	14% 13%	16% 14%	16% 14%	16%	16% 12% Page VI-1-71	16%
									٠			٠.									_]	-	7

TableVI-1-18 Cash Flow (Alternative 1)

2023 20 100%	0.0	92.6	95.6	8.8	100.3		0.0	4 5 5	3.9	4.1	6))) (00	0.0	0.0	0.0	87.4		12.9		16.8	12.9	
2022 2 19 100% 1	0.0	92.6	95.6	4.8	100.3		- }	1		1.4	(9 0	0.0	0.0	0.0	0.0	87.4		12.9		16.8	12.9	Page VI-1-22
2021 2 18 100% 1	0.0	92.6	95.6	8.4	100.3		0.0	78.7	3.9	1.4		3 6	0.0	0.0	0.0	9	87.4		12.9		16.8	12.9	
2020 2 17 100% 1	0.0	92.6	95.6	4.8	100.3		0.0	4.0.7 7.α7	2.0	1.4			0.0	0.0	0.0	0.0	85.5		14.9		16.8	14.9	•
2019 2 16 100% 1	0.0	92.6	92.6	4.8	00.3		0.0	787	1.9	1.4	•	0.0	0.6	0.0	5.6	5.6	91.6		8.8		16.8	14.9	
2018 2 15 100% 1	0.0 0.0 5.6 5.6	92.6	95.6	8.8	105.9			78.7	'	1.4)) -	1.9	0.0	18.8	18.8	105.9		0.0		16.8	15.1	•
2017 2 14 100% 1	0.0 0.0 18.8 18.8	95.6	95.6	4. 00	119.1	*		5.4		1.4	•	3.0	3.2	0.0	30.9	30.9	119.1		-0.0		16.8	15.3	
2016 2 13 100% 10	0.0 0.0 30.9 30.9	92.6	95.6	8.	31.2 1		0.0	78.7		1.4		0.0	4 4	0.0	1.		131.2 1		0.0		16.8	16.8	
2015 2 12 100% 10	0.0 0.0 43.3 43.3	92.6	95.6	4.8	143.6 1		0.0	3.4	0.0	1.4		0.0	5.6	0.0	54.6		143.6 1		-0.0		16.8	16.8	•
2014 2 11 100% 1	0.0 0.0 54.6 54.6	95.6	95.6	4.8	154.9 1		0.0	3.4	0:0	1.4		0.0	9.9		64.8		154.9 1		0.0		16.8	16.8	
2013 10 100% 1	0.0 0.0 64.8 64.8	92.6	95.6	4.8	165.1		0.0	3.4	0.0	1,4		0.1	7.5	1.5	72.5	74.1	165.1		0.0		16.8	16.8	
2012 9 100%	0.0 0.0 72.5 72.5	95.6	95.6	4.8	172.9		0.0	3.4	0.0	1.4		. 0.8 7.4	8.2	9.7	7.1.7	81.5	173.1		-0.2		16.8	16.8	
2011 8 100%	0.0 0.0 71.7 71.7	95.6	95.6	4.8	172.1		0.0	3.4	0:0	1,4	٠.	2.4	8.5	20.5	59.7	80.2	172.1		0	7.	16.8	16.8	
2010 7 100%	0.0 0.0 59.7 59.7	92.6	95.6	4.8	160.0		0.0	3.4	0.0	1.4		0 ×	8.7	20.6	47.2	8.29	160.0		0.0		16.8	16.8	
2009 6 100%	0.0 47.2 47.2	92.6	95.6	4.8	147.5		0.0	3.4	0.0	1.4		4.6	9.0	16.	35.9	55.0	147.6		0.0		16.8	16.8	
2008 5 100%	0.0 0.0 35.9 35.9	92.6	92.6	8.8	136.2		0.0	3.4	0.0	1.4		67	9.3	17.8	25.6	43.4	136.3		0.0		16.8	16.8	
2007 4 100%	0.0 0.0 25.6 25.6	5.56	95.5	8.8	125.9		0.0	3.4	0.0	1.4		2 6	9.6	16.6	16.3	32.9	126.0		-0.0		16.8	16.8	
2006 3 100%	0.0 0.0 16.3	94.4	94.4	4.8	115.5			3.4	0.0	1.2		0.6	6.6	14.5	8.4	22.9	115.5		0.0)	16.3	16.3	
2005 2 90%	0.0 0.0 8.4 8.4	82.8	82.8	4.3	95.4		0.0	3.0	0.0	8.0		7. 6	10.0	ν α	3,6	12.0	95.0 115.5		0.4		13.5	13.5 16.3	
	0.0 8.8 3.5 12.3	51.1	51.1	2.8	66.2		8.8	2.0	0.0	0.0		7.6	9.7	-	0.0	1.0	65.8		0.5		-1.9	-1.9	
2003 2004 -1 1 60%	0.0 47.2 0.0 47.2	0.0	0.0	0.0	47.2		38.1	0.0	0 0	0.0		- 6 6 6	9.0	ć		0.0	47.2		0.0		47.2	47.2	
2002	0.0 65.1 0.0 65.1	0.0	0.0	0.0	65.1		62.3	00	0 0	0.0		2.0	. 6 . 6 . 8	o c		0.0	65.1		0.0		-65.1	-65.1	
2001	0.0 8.8 0.0 8.8	0.0	0.0	0.0	8.8		8.4	0.0	0.0	0.0		0.3	ე. ე.ე.	0	0.0	0.0	8.8		0.0		8.8	& &	
																					-p-c	9.42% NPV: -6.9 [a-b-c-d]	9.05 % NPV: -9.5
				a)			ts (b)	sets				an	an	. ;	. 1us						Tax) [a	NP ax) [a-	AN.
			ration (a	er Incom	€		red Asse	rrent As				Interest in Long term loan	Interest in Short term loan est paid		Long term loan repayment Short term loan repayment		(B) W(3 M	(A-B)		(Before	(After T	
ion(%)	Equity Long term loan Short term loan I Inflow of Fund	Sales revenue	of Ope	of Oth	INFLOV		se of Fü	Se of C.	(S) to (5)			ın Long	n Shor	_	erm loan	ment	DUTFL		CASH FLOW (A-B)		T IRRO	IRRO	
Calendar Year Project Year Capacity utilization(%)	Equity Long term loan Short term loan	Sales r	Total Inflow of Operation (a)	Total Inflow of Other Income	TOTAL CASH INFLOW		Total Increase of Fixed Assets (b)	Total Increase of Current Assets	Operation Cost (c)	V.A.T.		Interes	Interest naid		Short to	Loan repayment	TOTAL CASH OUTFLOW (B)				CASH FLOW for IRROI(Before Tax) [a-b-c]	9.42°	
Calendar Year Project Year Capacity utiliz	Ę		T.	Ţ	TOTAL		Tot	<u>[</u>]	임	≝ >	:		, in	 		S	TOTAL		TOTAL		CASH	CASH	

Calendar Year	2001	2002 2003	2003	2004		2006	2007	2008	2009 2	2010 2	2011 2	2012 2	2013 2	2014 2	2015 2		2017 20 14	2018 20 15	2019 20: 16	2020 2021 17 18	w	2022 202	2023
Project Year	ņ	7	7	, 60%	%06		4 100% 1	100%	100% 10	100% 1						100% 10	• •		100% 100%	22 100%	T-1	00% 10	100%
		٠		' • . • • •									٠.				٠.						
ASSETS		. (ا د		o c	œ c	. a		× C	0.7	0.4	5.0	0.5	0.5	1		:				49.9 6	52.8
Cash in hand	0.0	ე- ე-	0.0	?	0 1)))	0 0	0 0				. 0 8	. 0		8.0								8.0
Accounts Receivable	0.0	0.0	0.0	4.0	7.1	ų. į	0.0	0.0	9 6	2 *	5 6)	2 6					. :					3.4
Other Liquid assets	0.0	0.0	0.0	2.0	3.0	3.4	3.4	3.4	5.4	4,0	٠	: † † 0 0	† ·	t -	,								2.1
Finished products (a)	0.0	0.0	0.0	1.2	1.9	2.1	2.1	2.1	2.1	Z.1	7.1	7.7	7.7	7.7	7 6								
Raw materials & supplies (b)	0.0	0.0	0.0	2.3	3.4	3.8	3.8	3.8	8.	3.00	χο (C)	3.8	× ×	3.8 S	3.5 5.0	0.0	0.1	0 0	0 0	0 0	0 0		9 0
Total Inventories (a+b)	0.0	0.0	0.0	3.5	5.3	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.5)
										÷.:		1.	-	,		: -					2 6 7 3		0
Total Current Assets (A)	0.0	0.0	0.0	10.6	16.2	18.1	18.1	18.0	18.0	18.0	17.9	17.7	17.7	17.7	17.7	/:/	1/./	7./.7	t C.07	1	-		2
					(Ç	. 0		į			. 70	7	8			+ 1			2.	0.4
Equipment & Buildings	8.4	70.7	70.7 108.9 104.2	104.2	80.0	4.	0.40	0.00	0.0	֓֞֝֜֝֜֝֝֝֜֝֝֝֝֝֓֜֝֝֝ ֓֓֓֞֓֓֞֞֓֓֞֞֞֓֓֞֞֞֓			0.0		. 5	. 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortization	0.3	3.1	12.2	6.7		4 V	57	3	2		3			2	>	}							
Mars Fixed Access (B)	ος ος	73.8	73.8 121.0 114.0	114.0	98.1	82.3	66.5	50.6	42.8	34.9	27.1	19.3	11.5	10.4	9.3	8.2	7.1	0.9	4.8	3.7	2.6	1.5	0.4
(a) manny may r															- 1		- 1						
TOTAL ASSETS (A+B)	8.8	73.8	121.0	124.6	114.4	100.4	84.5	68.7	8.09	52.9	45.0	37.0	29.2	28.1	27.0	25.9	24.7 2	23.6 3	31.3 4	45.1 5	56.8 6	9.89	80.4
			٠.	-																			
LIABILITIES & EQUITY			• .					· • !	1	·		(t L			-					4
Accounts Payable	0.0	0.0	0.0	3.4	5.2	5.7	5.7	5.7	5.7	\ \ \	>.	7.		7.0					٠				; ;
Other current liabilities	0.0	0.0	0.0	2.8	43	4.8	4.8	4.8	4.8	4.8	8.4	8	8	8	8	8.8	% %	8.	δ.	4. i	δ. 0	4 (0 (ė o
Short term loan	0.0	0.0	0.0	3.5	8.4	16.3	25.6	35.9	47.2	59.7	71.7	72.5	٠.	54.6)
Total current liabilities	0.0	0.0	0.0	9.7	17.8	26.8	36.1	46.4	57.7	70.2	82.2	83.1		65.1	53.8	41.4					- '		10.5
Town towns loan	α α	, %	121.0	128.8	120.4	105.9	89.3	71.5	52.3	31.8	11.3	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Fixed liabilities	00 00	73.8	121.0	128.8		105.9	89.3	71.5	52.3	31.8	11.3	1.5	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
	o o	73.8	1210	138.6	138.7	1327	125.4	117.9	110.1	101.9	93.5	84.6	75.3	65.1	53.8	41.4	29.3	16.1	10.5 1	10.5	10.5	10.5	10.5
(VIALIAMENTES (C)	25	25					1		1 .							-							
Capital Stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0
Retaianed Profit	0.0	0.0	0.0	-14.0	-23.8	-32.3	40.9	49.2	49.3	49.0	48.5	47.6	46.1	-37.0	-26.9	-15.6	4.6			34.5	46.3 5		66.6
										ŀ	- [- 1	- 1						1				3
TOTAL EQUITY (D)	0.0	0:0	0.0	-14.0	-23.8	-32.3	40.9	49.2	49.3	49.0	48.5	47.6	46.1	37.0	-26.9	-15.6	4.6	7.5	20.8	34.5	46.3	28.1	2.20
TOTAL LIABILITIES & EQUITY (C+D)	8.8	73.8	121.0	124.6	114.4	100.4	84.5	68.7	8.09	52.9	45.0	37.0	29.2	28.1	27.0	25.9	24.7	23.6	31.3 4	45.1	56.8	68.6	80.4
																						Page VI-1-23	
													٠										1

TableVI-1-18 Net Income statement (Alternative 2)

	2001	2007		2004	2005	2006	2007	2008	2009	2010	2011 2	2012			2015	2016							2023
Calendar Year Project Year (Capacity utilization(%)		-2 -1					4	2 - Fi					100% 1	11 100% 1	12 100% 1	13 100% 1	14 00% 1	15 100% 1		1.7 1.00% 1	18 100% 1(19 100% 10	20 100%
Sales Revenue	0.0	0.0	0.0	52.9	80.9	5.06	90.7	200.7	90.7	200.7	90.7	90.7	200.7	20.7	20.7	90.7	20.7	90.7	90.7	90.7	20.7	90.7	50.7
Total Income (a)	0.0	0.0	0.0	52.9	80.9	90.5	7.06	90.7	90.7	5:06	7.06	20.7	90.7	90.7	90.7	90.7	200.7	90.7	90.7	90.7	7.06	90.7	20.7
Materials Other Variable costs	0.0	0.0	0.0	35.0	55.7	63.2	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7 5.5	63.7 5.5	63.7 5.5	63.7	63.7	5.5	63.7
Less Variable costs (b)	0.0	0.0	0.0	38.3	9.09	68.7	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
VARIABLE MAEGIN (c=a-b)	0.0	0.0	0.0	14.6	20.2	21.8	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
Production fixed cost Depreciation & Amortization General administration expence	0.0	0.0	0.0	1.5 13.3 0.8	1.7 13.3 1.2	13.3	1.7 13.3 1.4	1.7 13.3 1.4	7.7 7.7 4.1	1.7	1.7	1.7	1.7	1.7	717 71	1.1	1.1	1.7	1.7	1.1	1.1	1.7	1.7
Less Fixed costs (d)	0.0	0.0	0.0	15.6	16.2	16.4	16.4	16.4	10.8	10.8	10.8	10.8	10.8	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	5
OPERATIONAL MARGIN (c=c-d)	0.0	0.0	0.0	-1.0	4.1	5.4	5.1	5.1	10.7	10.7	10.7	10.7	10.7	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
Long term loan interests Short term Loan & Deposit interests	0.0	0.0	0.0	14.7	14.6 0.4	14.1	13.2	12.0	7.8	6.5 3.1	3.8	3.5	1.9	5.5	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less Finance costs (f)	0.0	0.0	0.0	14.7	15.0	14.7	14.2	13.7	10.1	9.5	8.9	8.2	7.4	6.3	5.1	3.7	2.4	1.0	0.0	0.0	0.0	0.0	0.0
GROSS PROFIT (g=c-f)	0.0	0.0	0.0	-15.6	-11.0	-9.3	-9.2	-8.6	9.0	1.2	1.8	2.5	3.3	11.0	12.2	13.6	14.9	16.3	17.3	17.3	17.3	17.3	17.3
	(0.0)	(0.0)	(0.0) (0.0)	.15.6) (- (0.0)	(0.0) (-15.6) (-26.6) (-35.9) (-45.1) (0.0) (0.0) (0.0) (0.0) (0.0)	35.9) (- (0.0)		(-53.7) (- (0.0)	(-53.1) (-(0.0)	(-52.0) (- (0.0)	(-50.2) (~ (0.0)	(47.6) (-(0.0)	(44.3)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Income Tax (h)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.9	2.0	2.2	4.3	4.3	4.3	4.3
NET PROFIT AFTER TAX (g-h)	0.0	0.0	0.0	-15.6	-11.0	-9.3	-6.5	-8.6	9.0	1.2	1.8	2.5	3.3	11:0	12.2	11.9	13.0	14.3	15.1	13.0	13.0	13.0	13.0
RATIOS Gross Profit / Salès Net Profit after tax / sales				-30% -30%	-14%	-10%	-10%	-10% -10%	12%	1% 1%	% % 72 %	3%	% % %	12% 12%	13% 13%	15%	16% 14%	18%	19% 17%	19%	19%	19% 1 14% 1 Page V1-1-24	19%
																					ĺ		

Table VI-1-18 Cash Flow (Alternative 2)

Calendar Year Project, Year	2001	2002 2003 -2 -1	2003	2004	2005	33	2007	2008	2009	2010	2011 8 100%	2012 9	2013 ; 10 ;	2014 2 11 100% 1	2015 2 12 100% 10	2016 2 13	2017 2017 2017 2010 2010 2017 2017 2017	2018 20 15 100% 10	2019 2020 16 17	2020 2021 17 18 100% 100%	21 2022 18 19 % 100%	22 2023 (9 20 % 100%	£ 52 53
Capacity utilization(%)				9/00		× 00	200				4.7	, , ,	100										1
Equity Langtonn loon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							0.0
Short term loan Total Inflow of Funds	0.0	0.0	0.0	3.9	5.9	10.7	16.5	22.9	29.9	37.7	46.2	53.9	53.5			23.8	9.6	0.0	0.0	0.0	0.0	0.0	0.0
Sales revenue	0.0	0.0	0.0	48.5	78.6	89.7	90.7	90.7	7.06	7.06	7.06	7:06	90.7	90.7	20.7	20.7	90.7	90.7	90.7 91	36 2.06	7.06 7.06		7.06
Total Inflow of Operation (a)	0.0	0.0	0.0	48.5	78.6	89.7	90.7	90.7	90.7	7.06	90.7	90.7	90.7	90.7	7.06	90.7	90.7	90.7 9	90.7	90.7 90	7.06 7.06	1	90.7
Total Inflow of Other Income	0.0	0.0	0.0	2.6	4.0	4.5	4.5	4.5	4.5	4.5	45	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5 4	4.5 4	4.5 4	4.5
TOTAL CASH INFLOW (A)	8.7	62.9	48.0	63.7	88.5	104.8	111.7	118.1	125.2	132.9	141.5	149.1	148.8 1	145.3 1	132.0 1	119.0	104.9 9	95.2 9	95.2 9.	95.2 95	95.2 95.2		95.2
			1.		1											-							
Total Increase of Fixed Assets (b)	8.3	62.2	37.1	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0					0.0
Total Increase of Current Assets	0.0	0.0	0.0	1.9	2.8	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1		3.1								
Operation Cost (c)	0.0	0.0	0.0	40.6	63.6	71.8	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3				72.3 7	72.3 7.	72.3 72	72.3 72	72.3 72	72.3
Income tax (d)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7		- 1	1				ω,
VAT	0.0	0.0	0.0	0.0	0.8	1.2	1.4	1.4	1,4	1.4	7.7	1.4	1.4	1.4	14	1.4	1.4	1.4	- 1		1.4	1.4	4
Interest in Long term loan	0 4	3.7	11.0	11.6	11.6	11.1	10.1	0.6	7.8	6.5	5.1	3.5	1.9	6.0	0.0	0.0	0.0			٠.			0.0
Interest in Short term loan	0.0	0.0	0.0	0.0	0.4	0.6	1.1	17	2.3	3:∓	3.8	4.7	5.5	5.5	5.1	3.7	2.4	1.0	0.0	0.0	0.0	0.0	0.0
Interest paid	4.0	3.7	11.0	11.6	12.0	11.7	11.2	10.7	10.1	9.5	8.9	8.2	7.4	6.3	5.1	3.7	2.4		-				
Long term loan repayment	0.0	0.0	0.0	0.5	5.1	11.1	13.0	14.1	15.3	16.7	18.1	18.1											0.
Short term loan repayment	0.0	0.0	0.0	0.0	3.9	5.9	10.7	16.5	22.9	29.9	37.7	46.2	53.9	53.5	50.0	36.7	23.8	9.6	0.0	0.0	0.0	0.0	0.0
Loan гераутені	0.0	0.0	0.0	0.5	0.6	17.0	23.7	30.6	38.2	46.6	55.8	64.3	-	1				ļ		-		-	2
TOTAL CASH OUTFLOW (B)	8.7	62.9	48.0	63.3	88.2	104.8	111.7	118.1	125.2	132.9	141.5	149.4	148.8 1	145.3 1	132.0 1	119.0	104.9 8	89.5 7	8 0.67	81.2 81	81.2 81.2	11	81.2
									٠.	*													
TOTAL CASH FLOW (A-B)	0.0	0.0	0.0	0,4	0.4	0.0	-0.0	-0.0	-0.0	-0.0	0.0	-0.3	0.0	-0.0	0.0	-0.0	-0.0	5.7 1	16.2	14.1 14	14.1 14.1		14.1
CASH FLOW for IRROI(Before Tax) [a-b-c]	-8.7	-62.9	48.0	-0.7	15.0	17.9	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4 18	18.4 18	18.4 18	18.4
10.46% NPV : 1.3	٠	÷																		•			
CASH FLOW for IRROI(After Tax) [a-b-c-d]	-8.7	-65.9 -48.0	48.0	-0.7	15.0	17.9	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	16.7	16.5	16.4	16.2	14.1 14	14.1 14	14.1 14.1	II r
NPV : -2.2																					VI-	Page VI-1-25	

Table VI-1-18 Balance Sheet (Alternative 2)

2022 2023 119 20 100% 100%	64.7 78.8 7.6 7.6 3.1 3.1 1.9 1.9 3.5 3.5 5.4 5.4	80.8 94.9	1.1 0.0	1.1 0.0	81.9 94.9		5.3 5.3 4.5 4.5 0.0 0.0 9.8 9.8	0.0 0.0	8.8 8.8	0.0 0.0	72.1 85.0	81.9 94.9 Page
2021 18 100%	50.6 7.6 3.1 1.9 3.5 5.4	66.7	2.2	2.2	68.9		5.3 0.0 9.8	0.0	9.8	0.0 59.1	59.1	68.9
2020 17 100% 1	36.5 7.6 3.1 1.9 3.5 5.4	52.6	3.3	3.3	55.9		5.3 4.5 0.0 9.8	0.0	9.8	0.0	46.1	55.9
2019 16 100%	22.4 7.6 3.1 1.9 3.5 5.4	38.5	4.4	4.4	43.0	•	5.3 0.0 9.8	0.0	9.8	33.1	33.1	43.0
2018 15 100%	6.2 7.6 3.1 1.9 3.5 5.4	22.3	5.5	5.5	27.8		5.3 4.5 0.0 9.8	0.0	8.6	0.0	18.0	27.8
2017 14 100%	0.4 7.6 3.1 1.9 3.5 5.4	16.5	6.7	6.7	23.2	* *	5.3 4.5 9.6 19.5	0.0	19.5	3.7	3.7	23.2
2016 13 100%	0.4 7.6 3.1 1.9 3.5 5.4	16.5	7.8	7.8	24.3		5.3 4.5 23.8 33.6	0.0	33.6	0.0	-9.3	24.3
2015 12 100%	0.4 7.6 3.1 1.9 3.5 5.4	16.6	8.9	8.9	25.4	•	5.3 4.5 36.7 46.6	0.0	46.6	21.2	-21.2	25.4
2014 11 100%	0.4 7.6 3.1 1.9 3.5 5.4	16.5	10.0	10.0	26.5		5.3 4.5 50.0 59.9	0.0	59.9	33.4	-33.4	26.5
2013 10 100%	0.5 7.6 3.1 1.9 3.5 5.4	16.6	11.1	11.1	27.7		5.3 4.5 53.5 63.4	8.6	72.0	0.0	44.3	27.7
2012 9 100%	0.4 7.6 3.1 1.9 3.5 5.4	16.5	18.8	18.8	35.3		5.3 4.5 53.9 63.7	19.2	82.9	0.0	47.6	35.3
2011 8 100%	0.7 7.6 3.1 1.9 3.5 5.4	16.8	26.4	26.4	43.2		5.3 4.5 46.2 56.1	37.3	93.4	0.0	-50.2	43.2
2010 7 100%	0.7 7.6 3.1 1.9 3.5 5.4	16.8	34.1	34.1	51.0		5.3 4.5 37.7 47.5	55.4	102.9	0.0	-52.0	51.0
2009 6 100%	0.7 7.6 3.1 1.9 3.5 5.4	16.9	41.8	41.8	58.7		5.3 4.5 29.9 39.8	72.1	111.8	0.0	-53.1	58.7
2008 5 100%	0.8 7.6 3.1 1.9 3.5 5.4	16.9	49.5	49.5	66.4		5.3 4.5 22.9 32.7	87.4	120.1	0.0	-53.7	66.4
2007 4 100%	0.8 7.6 3.1 1.9 3.5 5.4	16.9	62.9	62.9	82.8		5.3 4.5 16.5 26.3	101.5	127.9	0.0	-45.1	82.8
2006 3 100%	0.8 7.5 3.1 1.9 3.5 5.4	16.9	76.2	82.2	99.2		5.3 4.5 10.7 20.5	114.6	135.1	0.0	-35.9	99.2
2005	0.8 6.7 2.8 1.7 3.1 4.9	15.2	99.5	98.6	113.8		4.8 4.0 5.9 14.7	125.6	140.4	0.0	-26.6	113.8
2004 1 60%	0.4 4.4 1.9 1.1 2.1 3.2	6.6	102.8	114.9	124.9		3.2 2.6 3.9 9.8	130.8	140.5	0.0	-15.6	124.9
2003	0.0	0.0	107.5	74.6 122.6 114.9	122.6		0.0	74.6 122.6 74.6 122.6	122.6	0.0	0.0	122.6
2002	0.0	0.0	70.5	74.6	74.6		0.0	74.6	74.6	0.0	0.0	74.6
2001	0.0	0.0	8.3	8.7	8.7		0.0	8.7	8.7	0.0	0.0	8.7
Calendar Year Project Year Capacity utilization(%)	Cash in hand Accounts Receivable Other Liquid assets Finished products (a) Raw materials & supplies (b) Total Inventories (a+b)	Total Current Assets (A)	Equipment & Buildings Amortization	Total Fixed Assets (B)	TOTAL ASSETS (A+B)	1 6	Accounts Payable Other current liabilities Short term loan Total current liabilities	Long term loan Total Fixed liabilities	TOTAL LIABILITIES (C)	Capital Stock Retaianed Profit	TOTAL EQUITY (D)	TOTAL LIABILITIES & EQUITY (C+D)

Table VI-1-18 Net Income statement (Alternative 2A - provided by VSC)

(Unit: MillionS)

Calendar Year	2001	2002	2003	2001 2002 2003 2004 2005 2006	2002	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 2	2022	2023
Project Year Capacity utilization(%)	က	7	7	1 60%	2 06%	3	100%	5 100%	6 100%	7 100%	8 100%	9 100%	100% 100%	100%	77	100%		100%	end.				100%
Sales Revenue	0.0	0.0	0.0	52.9	80.9	90.5	200.2	206	90.7	200.7	90.7	90.7	20.7	90.7	200.7	2.06	206	90.7	20.7	. 206	20.7	20.7	20.2
Total Income (a)	0.0	0.0	0.0 0.0	52.9	80.9	90.5	90.7	90.7	90.7	90.7	7.06	90.7	90.7	7.06	7.06	90.7	20.7	50.7	90.7	20.2	20.7	90.7	90.7
Materials Other Variable costs	0.0	0.0	0.0	33.0	55.7	63.2	63.7	5.5	63.7 5.5	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7
Less Variable costs (b)	0.0	0.0	0.0	38.3	9.09	68.7	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
VARIABLE MAEGIN (c=a-b)	0.0	0.0	0.0	14.6	20.2	21.8	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
Production fixed cost Depreciation & Amortization General administration expence	0.0	0.0	0.0	1.5 13.3 0.8	1.7 13.3 12	1.7 13.3 1.4	1.7 13.3 1.4	13.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.1	1.7	1.7	1.7	1.7	1.1	1.1
Less Fixed costs (d)	0.0	0.0	0.0	15.6	16.2	16.4	16.4	16.4	10.8	10.8	10.8	10.8	10.8	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
OPERATIONAL MARGIN (e=c-d)	0.0	111	0.0	-1.0	4.1	5.4	5.1	5.1	10.7	10.7	10.7	10.7	10.7	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
Long term loan interests Short term Loan & Deposit interests	0.0	0.0	0.0	14.6	14.0	13.2	12.0	10.7	5.6	4.4	2.7	1.2	0.1 6.4	5.9	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less Finance costs (f)	0.0	0.0	0.0	14.6	14.9	14.6	14.1	13.6	9.4	& &	8.2	7.5	9.9	5.9	4.7	3.2	1.8	03	0.0	0.0	0.0	0.0	0.0
GROSS PROFIT (g=e-f)	0.0	0.0	0.0	-15.5	-10.8	-9.2	-9.0	-8.5	1.3	1.9	2.6	3.3	4.2	11.4	12.6	14.1	15.5	17.0	17.3	17.3	17.3	17.3	17.3
(Loss Forward) (Taxable Income)	(0.0)	(0.0) (0.0)	(0.0)	(0.0) (-15.5) (-26.3) (-35.5) (0.0) (0.0) (0.0)	(-26.3) (0.0)	(-35.5)	(0.0)	(-53.0)	(0.0)	(49.7) (0.0)	(0.0)	(-43.8)	(-39.7)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Income Tax (h)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.9	2.1	2.2	43	4.3	4.3	4.3
NET PROFIT AFTER TAX (g-h)	0.0	0.0	0.0	-15.5	-10.8	-9.2	-9.0	-8.5	13	1.9	2.6	3.3	4.2	11.4	12.6	12.3	13.5	14.8	15.1	13.0	13.0	13.0	13.0
RATIOS										. !					i	į				;	1		ļ
Gross Profit / Sales Net Profit after tax / sales				-29%	-13% -13%	-10%	-10% -10%	%6. %6.	1%	7 7 %	3%	4 4 % %	5% 5%	13%	14%	16% 14%	17%	19% 16%	19% 17%	19% 14%	19% 14%	19% 14%	19% 14%
							·															Page VI-1-27	[]

Table VI-1-18 Cash Flow (Alternative 2A - provided by VSC)

State Stat	Calendar Year Project Year	2001	2002	2002 2003 -2 -1		2004 2005 2006	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
State Stat	ation(%)				%09%	%06	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Columb C	ity g term loan rt term loan low of Funds	0.0 8.9 0.0 8.9		, ,	0.0 8.6 8.4 17.0	0.0 0.0 13.6 13.6	0.0 0.0 20.5 20.5	0.0 0.0 28.3 28.3	0.0 0.0 36.4 36.4	0.0 0.0 44.7 44.7	0.0 0.0 53.5 53.5	0.0 0.0 61.0 61.0	0.0 0.0 63.2 63.2	0.0 0.0 57.6 57.6	0.0 0.0 45.7 45.7	0.0 0.0 31.3 31.3	0.0 0.0 17.9 17.9	0.0 0.0 3.2 3.2	0.0	0.000	0.0	0.0	0.0	0.0 0.0
(a) 0.0 0.0 0.0 4.85 78.6 89.7 90.7 90.7 90.7 90.7 90.7 90.7 90.7 9	s revenue	0.0	0.0		48.5	78.6	89.7	90.7	90.7	7.06	90.7	90.7	90.7	90.7	90.7	90.7	7.06	200.7	90.7	7.06	90.7	200.7	90.7	90.7
See See See See See See See See See Se	low of Operation (a)	0.0	0.0	0.0	48.5	78.6	89.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	7 06	7.06	90.7	90.7	90.7	7.06	90.7	90.7	90.7	90.7
Sees Secondary Secondary	Row of Other Income	0.0	0.0	0.0	2.6	4.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	45	4.5	45	24
Sessic (b) 8.3 6.21 37.0 8.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	11	8.9	0.69	47.7	68.2	96.2	114.7	123.5	131.6	140.0	148.7	156.2	158.4	152.8	140.9	126.6	113.1	98.5	95.2	95.2	95.2	95.2	95.2	95.2
Asserte State St								٠.								• .								
Column C	crease of Fixed Assets (b)	83	62.1	37.0	8.6	0.0	3.1	0.0	3.1	3.1	0.0	3.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Does Color Color	n Cost (c)	0.0	0.0	0.0	40.6	63.6	71.8	72.3	72.3	72.3	72.3	723	723	72.3	72.3	72.3	72.3	72.3	72.3	723	72.3	72.3	72.3	72.3
Decoration Dec	ax (d)	00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0:0	0.0	0.0	0.0	1.8	13	2.1	22	43	4.3	43	4.3
loan 0.7 6.9 10.7 10.9 10.3 9.5 8.3 7.0 5.6 4.2 2.7 1.2 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		0.0	0.0	0.0	0.0	».	1.2	7.4	1.4	1.4	7.	4.	7	7.	1.4	1.4	1.4	1:4	1.4	1.4	1.4	1.4	1.4	1.4
ment 0.0 0.0 0.0 0.0 5.8 9.2 14.1 15.7 16.6 17.4 18.4 17.7 13.2 6.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Interest in Long term loan Interest in Short term loan	0.7		10.7		10.3	9.5	8.3	7.0	5.6	4.4	2.7	1.2	0.1	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ment 0.0 0.0 0.0 0.0 5.8 9.2 14.1 15.7 16.6 17.4 18.4 17.7 13.2 6.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	paid	0.7		10.7	. 1	11.2	10.9	10.4	6.6	9.4	8.8	8.2	7.5	9.9	5.9	4.7	3.2	1.8	0.3	0.0	0.0	0.0	0.0	0.0
B B B B B B B B B B	Long term loan repayment Short term loan repayment Loan repayment	0.0		0.0		9.2 8.4 17.6	14.1 13.6 27.6	15.7 20.5 36.3	16.6 28.3 44.9	17.4 36.4 53.8	18.4 44.7 63.1	17.7 53.5 71.2	13.2 61.0 74.1	6.3 63.2 69.4	0.0 57.6 57.6	0.0 45.7 45.7	31.3 31.3	0.0 17.9 17.9	3.2	0.0	0.0	0.0	0.0	0.00
-0.0 -0.0 -0.0 -0.0 0.4 0.2 0.1 0.0 0.0 -0.0 -0.0 0.0 0.0 0.0 0.6 -0.6 0.0 0.0 12.7 16.2 14.1		8.9	0.69	47.7	67.8	95.9	114.6	123.5	131.6	140.0	148.7	156.2	158.4	152.8	140.3	- 1 - 1	113.1	98.5	82.5	79.0	81.2	81.2	81.2	81.2
-0.0 -0.0 -0.0 -0.0 0.4 0.2 0.1 0.0 0.0 -0.0 -0.0 0.0 0.0 0.6 -0.6 0.0 0.0 12.7 16.2 14.1 14														·										
-8.9 -69.0 -47.7 -0.7 15.0 17.9 18.4 18.4 18.4 18.4 18.4 18.4 18.4 18.4	H FLOW (A-B)	0.0	0.0	-0.0	0.4	0.2	0.1	0.0	0.0	-0.0	0.0-	0.0	0.0	0.0	9.0	-0.6	0.0	0.0	12.7	16.2	14.1	14.1	14.1	141
-8.9 -69.0 -47.7 -0.7 15.0 17.9 18.4 18.4 18.4 18.4 18.4 18.4 18.4 18.4																	I .							<u> </u>
-8.9 -69:0 -47.7 -0.7 15.0 17.9 18.4 18.4 18.4 18.4 18.4 18.4 18.4 18.4		-8.9		47.7	-0.7	15.0	17.9	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
	for IRROI(After Tax) [a-b-c-d] 9.69%	-8.9	0.69	47.7	-0.7	15.0	17.9	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	16.6	16.5	16.3	16.2	14.1	14.1	14.1	14.1
	NPV: -4.8																					Ĺ <u></u>	Page /1-1-28	

	2001	2000	2003	2003 2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015				2019		2021 2		2023
Calendar Year Project Year		7707	7	7	7		~	Ŋ	9			6	10	+ 1	12	13	14	. 15		17		100%	20 100%
Capacity utilization(%)				209	%06	100%	100%	100%	100%	100%	100%		, no.	%00T		%. 200							!
							:				. :								:				
ASSETS	ć	C	0	0.4	7.0	80	0.8	0.8	8.0	. 0.8	8.0	8.0	0.8	14	9.0	0.8	0.8	13.5	29.7	43.8	57.9	72.0	86.1
Cash in hand	2 6	9 6			67		7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	2.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
Accounts Receivable)) (9 6	3 6	; o	. «		3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Other Liquid assets) C		3 6	; ;	2 -	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	6.1	6:	6.1	1.9
Finished products (a)	9 0		3 0	7.	3.1	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Faw materials & supplies (v) Total Inventories (a+b)	0.0	0:0	0.0	3.2	4.9	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	4.	5.4	4,	5.4
	c	C	q	0	15.1	16.8	16.9	16.9	16.9	16.9	16.9	16.9	16.9	17.5	16.9	16.9	16.9	29.6	45.9	59.9	74.0	88.1	02.2
Total Current Assets (A)		2											-					,		,		C	ć
Faminment & Buildings	8.3	70.3	70.3 107.3	102.6	89.3	76.0	62.7	49.4	41.7	34.0	26.2	18.6	10.9	8	8.7	2.6	6.5	5.4	4 ·		0.2	א ס ס	7 0
Amortization	0.7	7.6	18.4	18.4 14.7	11.0	7.3	3.7	0.0	-0.0	0.0-	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0	0.0) O) ()))
	c		17.00	17.72	, 00.	ر. م	66.4	49.4	41.7	34.0	26.2	18.6	10.9	9.8	8.7	7.6	6.5	5.4	4.3	3.1	2.0	6.0	-0.2
Total Fixed Assets (13)	6		;																				
TOTAL ASSETS (A+B)	8.9	77.9	125.7	127.3	115.4	100.2	83.2	66.2	58.5	50.8	43.1	35.5	27.8	27.3	25.6	24.5	23.3	35.0	50.1	63.1	76.1	89.0	0.20
TIARIT THES & FOURTY									· :	÷.	· 				:						. :	•	1
Accounts Payable	0.0	0.0	0.0	3.2	4.8	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	53	53	S,3	5.3	5.3	ς. ε	S.3.	5.5	ν ω ,
Other current liabilities	0.0	0.0	0.0	2.6	4.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4 3	4 رن	5	4.5	4 (. 4. 9	4. c	3 5	4 c	4 c
Short term loan	0.0	0.0	0.0	8.4	13.6	20.5	28.3	36.4	7 44	53.5	61.0	63.2	57.6	45.7	31.3	17.9	3.2	0.0)) (0 0	2 0) a	5 0
Total current liabilities	0.0	0.0	0.0	14.2	22.4	30.4	38.1	46.2	54.6	63.3	70.8	73.0	67.4	55.5	41.2	27.7	13.1	χ, X	× ×	y v	o,	0	, 0
I and term loan	8.9	77.9	125.7	128.6	119.4 105.3	105.3	89.6	73.0	55.6	37.2	19.4	6.3	0.0-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Fixed liabilities	8.9	77.9	125.7	128.6	119,4	105.3	9.68	73.0	55.6	37.2	19.4	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ဝ
The state of the s										100	. 6		, ,	202	21.0	27.7	1 2 1	ď	α o	α	8 6	86	8.6
TOTAL LIABILITIES (C)	8.9	77.9	125.7	142.8	141.7	135.7	127.7	119.7	110.2	185.7	3	3	7.	3	11.11		7:57	2					
4 67. 4		c	C	0	- C	O	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capual Stock				'		. '	44.5	-53.0	-51.6	49.7	47.1	43.8	-39.7	-28.2	-15.6	-3.3	10.3	25.1	40.3	53.2	5.99	79.3	92.2
Kelalanco Prolit	2	2) }				2													:			
TOTAL EQUITY (D)	0.0	0.0	0.0	-15.5	-26.3	-35.5	44.5	-53.0	-51.6	49.7	47.1	43.8	-39.7	-28.2	-15.6	-3.3	10.3	25.1	40.3	53.2	66.2	79.2	92.2
				. 1	1 1			,	4	6	Ç	, ,	0	6	7 30	0 / 0	23.3	0.55	503	63.1	76.1	0 68	102.0
TOTAL LIABILITIES & EQUITY (C+D)	8.9	77.9	77.9 125.7	127.3	115.4	100.2	83.2	66.2	58.5	20.8	43.1	35	8.77	5/7	0.0	C.4.3	5.53	23.0	7.00	i S	3	11	
								٠	:			•									****	Page	

Table VI-1-18 Net Income statement (Alternative 3)

		:	:				1					-				, , , , , , , , , , , , , , , , , , ,				:	3	(פתסווווואו : סוווט	e E
Calendar Year Project Year Capacity utilization(%)	2001	2002	2003	2004 1 60%	2005 2 90%	2005 2006 2 3 90% 100%	2007 4 100%	2008 5 100%	2009 6 100%	2010 7 100%	2011 8 100%	2012 9 100%	2013 10 100%	2014 11 100%	2015 12 100% 1	2016 2 13 100% 10	2017 2 14 100% 10	2018 2 15 100% 10	2019 24 16 100% 10	2020 2 17 100% 1(2021 20 18 100% 10	2022 2 19 100% 10	2023 20 100%
Sales Revenue	0.0	0.0	0.0	52.9	80.9	90.5	200.7	90.7	200.7	90.7	90.7	200.2	7.06	200.7	90.7	90.7	90.7	90.7	90.7	20.7	5 2.06	90.7	90.7
Тота! Інсоте (а)	0.0	0.0	0.0	52.9	80.9	90.5	7.06	7007	7.06	90.7	90.7	90.7	2.06	90.7	20.7	20.7	90.7	90.7	90.7 9	90.7	90.7	90.7	20.7
Materials Other Variable costs	0.0	0.0	0.0	35.0	55.7	63.2	63.7	63.7	63.7 5.5	63.7	63.7	63.7	63.7	63.7 5.5	63.7 5.5	63.7 (63.7 (63.7 6 5.5	63.7 6	63.7 (63.7 6	63.7 6	63.7 5.5
Less Variable costs (b)	0.0	0.0	0.0	38.3	60.6	68.7	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2 6	69.2 6	69.2	69.2 6	69.2	69.2
VARIABLE MAEGIN (c=a-b)	0.0	0.0	0.0	14.6	20.2	21.8	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5 2	21.5	21.5 2	21.5	21.5
Production fixed cost Depreciation & Amortization General administration expence	0.0	0.0	0.0	1.5 13.3 0.8	13.3	1.7	13.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7 1.1 1.4	1.7 1.1 1.4	7.1.7	1.1. 1.1. 1.4.	7.1.1	1.7	1.7 1.1 1.4	1.7
Less Fixed costs (d)	0.0	0.0	0.0	15.5	16.2	16.4	16.4	16.4	10.8	10.8	10.8	10.8	10.8	4.2	4.2	4.2	2,	4.2	4.2	4.2	4.2	51	4.2
OPERATIONAL MARGIN (e=c-d)	0.0	0.0	0.0	-0.9	4.1	5.4	5.1	5.1	10.7	10.7	10.7	10.7	10.7	17.3	17.3	17.3	17.3	17.3 1	17.3 1	17.3	17.3 1	17.3	17.3
Long term loan interests Short term Loan & Deposit interests	0.0	0.0	0.0	10.8	10.8	10.3	9.3 0.4	8.2	4.9	3.7	23	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less Finance costs (f)	0.0	0.0	7 1	0.0 10.8 10.8		10.4	9.8	9.1	6.2	5.4	4.6	3.7	2.5	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GROSS PROFIT (g=c-f)	0.0	0.0	0.0	0.0 -11.7	6.8	-5.0	4.6	-3.9	4.5	5.3	6.1	7.0	8.3	16.4	17.3	17.3	17.3	17.3 1	17.3 1	17.3	17.3	17.3	17.3
(Loss Forward) (Taxable Income)	(0.0)	(0.0)		(0.0) (-11.7) (-18.5) (-23.4) (0.0) (0.0) (0.0) (0.0)	(0.0)	-	(-28.0) ((-32.0) (0.0)	(-27.5) ((-22.2) (-(0.0)	(-16.1) (0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0) (8.6)	(0.0) (8.6) (17	(0.0) (0.1) (1.2) (1.3)	(0.0) (0.1) (17.3) (17.3)	(0.0) (17.3) (1.7	(0.0)
Income Tax (h)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	4.3	4.3	4.3	4.3
NET PROFIT AFTER TAX (g-h)	0.0	0.0	0.0	-11.7	6.8	-5.0	4.6	3.9	4.5	5.3	6.1	7.0	8.3	16.4	17.3	15.1	15.1	15.1	15.1	13.0	13.0 1	13.0	13.0
RATIOS Gross Profit / Sales Net Profit after tax / sales				-22%	%8-	.5%	.5%	4 4 % %	5% 5%	6% 6%	7%	8%	%6 %6	18% 18%	19% 19%	19% 1	19% 1	19% 1	19% 19	19% 1	19% 11		19%
					٠.																	Page	

Table VI-1-18 Cash Flow (Alternative 3)

(Unit: MillionS)

95.2 0.0 81.2 14.1 18.4 2023 20 0.0 90.7 90.7 4.5 1.4 0.0 14.1 Page VI-1-31 95.2 81.2 18.4 14.1 2022 19 100% 90.7 0.0 90.7 4.5 6.3 0.0 0.0 14.1 14.1 2021 95.2 3.1 4.3 1.4 90.7 0.0 81.2 18.4 100% 00000 90.7 4. S 0.0 14.1 95.2 18.4 14.1 2020 17 100% 90.7 0.0 81.2 3.1 1.4 90,7 5.4 0.0 0.0 14.1 72.3 18.4 16.2 79.0 7.06 90.7 95.2 100% 0.0 4.5 0.0 2.2 0.0 0.0 72.3 3 95.2 79.0 18.4 16.2 90.7 20.7 16.2 0.0 1.4 0.0 0.0 100% 4. 5. 72.3 3.1 95.2 18.4 16.2 90.7 16.2 100% 79.0 14 0.000 90.7 2.5 0.0 72.3 1,4 0.0 0.0 ٣, 16.2 95.2 79,0 18.4 100% 90.7 16.2 0.0 90.7 5.5 1.4 0.0 0.0 Ξ 72.3 3.1 76.8 18.4 18.4 18.4 100% 4.5 95.2 0.0 2015 0.0 90.7 3.1 0.0 12 90.7 0.0 20.7 18.4 18.4 2014 100% 86.3 0.6 95.2 3.1 0.0 90.7 4.5 0.0 0.0 0.0 8.6 8.6 18.4 90.7 1.5 23.0 24.5 103.8 18.4 103.8 0.0 100% 4. د 3.1 0.0 0.0 8.6 8.6 90.7 0.1 2.3 2.5 2012 0.0 0.0 23.0 23.0 90.7 118.2 3.1 0.0 0.0 1.4 9.3 28.6 37.9 118.5 18.4 18.4 90.7 4.5 0.2 100% 2.9 123.8 2011 100% 0.0 0.0 28.6 28.6 90.7 19.7 22.8 42.4 123.9 18.4 18.4 0.0 00 4 3 5 23 23 46 90.7 0.0 72.3 118.0 18.4 90.7 18.4 100% 0.0 90.7 <u>4</u> 3.1 0.0 18.3 17.5 35.8 118.0 0.0 22.8 3.7 18.4 18.4 .206 112.7 2009 100% 90.7 112.7 3.1 0.0 1.4 17.0 12.7 29.7 0.0 0.0 0.0 17.5 17.5 5. 4.9 1.3 6.2 107.9 15.8 8.3 24.1 0.0 0.0 12.7 12.7 90.7 3.1 0.0 0.0 1.4 107.9 18.4 100% 6.1 0.0-18.4 2008 7.06 4.5 7.06 103.5 14.7 4.3 19.0 103.5 18.4 100% 0.0 3.1 0.0 0.0 1.4 7.2 0.0 18.4 2007 7.06 4.5 100% 89.7 98.5 12.8 1.2 14.0 17.9 17.9 3.1 98.5 0.0 0.0 89.7 2 71.8 1.2 2006 8.2 0.1 8.3 15.0 78.6 83.8 9.59 83.5 15.0 0.4 0.0 0.0 0.4 %06 8.0 7.1 0.5 7.6 78.6 8.7 0.0 8.8 S 0.0 0.7 48.5 €09 0.0 8.7 8.65 -0.7 0.0 8.6 0.5 9.1 48.5 0.0 4.0 2004 2.6 1.9 45.1 2003 0.0 45.1 0.0 45.1 37.0 45.1 00 0.0 8.1 0.0 8.1 0.0 0.0 0.0 0.0 45.1 7 45.1 -64.4 1.8 62.6 0.0 0.0 -64.4 2002 0.0 0.0 64,4 0.0 2.3 0.0 64.4 0.0 0.0 4.4 & ... 2001 8.3 0.0 0.0 8.3 0.0 0.0 φ 3 0.0 8.3 8.3 0.0 0.0 0.0 8.3 0.0 0.0 [a-b-c-d] 10.49% NPV: 1.4 CASH FLOW for IRROI(Before Tax) [a-b-c] Total Increase of Fixed Assets (b) CASH FLOW for IRROI(After Tax) otal Increase of Current Assets Short term loan repayment Interest in Long term loan Interest in Short term loan Long term loan repayment Total Inflow of Operation (a) Total Inflow of Other Income 9 3 TOTAL CASH FLOW (A-B) TOTAL CASH OUTFLOW Total Inflow of Funds TOTAL CASH INFLOW Short term loan Long term loan Capacity utilization(%) Operation Cost (c) Sales revenue Loan repayment Income tax (d) interest paid Calendar Year Project Year

TableVI-1-18 Balance Sheet (Alternative 3)

(Unit: MillionS)

2023 145.3 100% 7.6 3.1 3.5 3.5 5.4 0.0 5.3 0.0 0.0 8.6 155.4 149.2 165.3 0.0 165.3 10.1 132.4 151.2 142.5 152.3 152.3 7.6 1.1 5.3 0.0 8.6 1.9 1.1 0.0 10.1 137.1 139.3 119.4 129.5 121.0 1.9 0.0 139.3 2 0 0 10.1 2021 2.5 5.3 0.0 8.6 3.1 106.9 123.0 126.4 106.4 116.5 3.5 3.0 0.0 5.3 0.0 8.6 10.1 126.4 3.1 33 0.0 108.9 93.4 103.5 3.1 4.4 113.4 113.4 6 4.4 4.5 0.0 3.5 0.0 8. 10.1 2018 100% 76.6 7.6 3.5 92.7 98.2 78.3 88.4 98.2 5.5 9.8 10.1 3.1 5.5 5.3 0.0 0.0 60.3 7.6 3.5 76.5 0.0 63.2 73.3 3.1 6.7 83.1 5.3 0.0 8. 10.1 6.7 83.1 100% 2016 1.9 60.2 7.8 7.8 68.0 5.3 4.5 0.0 9.8 0.0 8.8 48.0 68.0 7.6 3.1 58.1 10.1 100% 44.0 2015 7.6 52.8 10.1 1.9 8.0 0.0 8.6 43.0 52.8 3.1 8.9 4.5 0.0 0.0 3.5 2014 25.6 100% 9.4 3.5 0.0 0.0 10.0 35.5 4.5 0.0 0.0 10.1 15.6 25.7 35.5 3.1 5.3 8.6 100% 2013 16.6 11.1 8.6 10 7.6 3.1 1.9 11.1 27.7 0.0 18.4 8.0 27.7 3.5 63 5.4 2 0.0 10.1 2012 100% 16.6 18.8 18.8 23.0 3.5 35.3 7.6 3.1 5.3 4.5 34.4 1.0 35.3 1.5 1.5 10.1 -6. 100% œ 28.6 2011 16.8 10.8 0,7 7,6 3.1 3.5 5.4 26.4 26.4 43.3 4.5 38.4 10.8 -16:1 9 43.3 5.3 49.3 10.1 2010 100% 16.8 34.1 22.8 34.1 51.0 32.6 30.5 -22.2 7.6 3.1 1.9 3.5 5.4 30.5 63.1 10.1 51.0 5.4 -12.1 100% 7.6 1.9 16.9 41.8 41.8 17.5 48.8 -27.5 58.7 4.5 27.3 48.8 58.7 3.1 3.5 -17.4 76.1 10.I 2008 100% 16.9 0.0 49.5 99 -21.9 0.8 3.1 1.9 49.5 12.7 65.8 -32.0 66.5 3.5 65.8 88.3 5.3 10.1 100% 16.9 6.9 81.8 81.6 8.66 -28.0 2007 7.6 5. 62.8 83 81.6 -17.9 3.1 3.5 81.8 5.4 7.5 18.1 10.1 100% 2006 6:1 16.9 76.1 4.2 80.3 97.2 4.5 4.3 96.4 96.4 -23.4 -13,3 97.2 7.5 3.1 3.5 110.5 5.4 14.1 10.1 110.8 119.2 2002 6.7 2.8 1.7 15.2 89.4 6.3 92.6 4.0 17 109.1 109.1 -18.5 8.4 110.8 3 10.1 10.1 111.0 116.3 122.6 2004 102.7 120.9 1163 -11.7 -1.6 120.9 %09 0.4 4.4 1.9 1.1 2.1 3.2 6.6 8.3 3.2 2.6 0.5 6.3 10.1 117.7 117.7 107.3 10.4 107.6 107.6 107.6 2003 0.0 0.0 0.0 0.0 00 0.0 0.0 1:17.7 0.0 0.0 10.1 10.1 72.7 62.6 2002 72.7 62.6 62.6 72.7 0.0 0.0 0.0 0.0 0.0 70.3 23 0.0 0.0 10.1 10.1 2001 8.3 8.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 8.3 8.3 83 8.3 (Q+2) Raw materials & supplies (b) TOTAL LIABILITIES & EQUITY Other current liabilities Finished products (a) Total Inventories (a+b) Equipment & Buildings Accounts Payable Total current liabilities Total Current Assets (A) TOTAL ASSETS (A+B) LIABILITIES & EQUITY Total Fixed liabilities Accounts Receivable Short term loan Other Liquid assets Capacity utilization(%) Long term loan fotal Fixed Assets (B) TOTAL LIABILITIES 9 Retaianed Profit Cash in hand Amortization Capital Stock TOTAL EQUITY Calendar Year Project Year

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TableVI-1-18 Net Income statement (Alternative 3B)

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					H	TableVI-1	.1-18	vet Inco	[-18 Net Income statement			(Alternative 3B)	Â								2	(Unit : MillionS)	llionS)
Calendar Year Project Year Capacity utilization(%)	2001	2002	2002 2003 -2 -1	2004 1 60%	2005	2006 3 100%	2007 4 100%	2008 5 100%	2009 6 100%	2010 7 100%	2011 8 100%	2012 9 100%	2013 10 100%	2014 11 100%	2015 12 100%	2016 13 100%	2017 14 100%	2018 15 100%	2019 16 100%	2020 17 100%	2021 18 100%	2022 19 100%	2023 20 100%
Sales Revenue	0.0	0.0	0.0	52.9	6.08	90.5	7.06	90.7	90.7	200.7	200.7	200.7	20.7	206	206	200.7	200.2	90.7	20.7	90.7	90.7	90.7	90.7
Total Income (a)	0.0	0.0	0.0	52.9	80.9	90.5	90.7	200.7	200.7	20.7	90.7	90.7	20.7	90.7	20.7	90.7	90.7	90.7	20.7	90.7	90.7	90.7	90.7
Materials Other Variable costs	0.0	0.0	0.0	35.0 3.3	55.7	63.2	5.5	63.7	63.7	5.5	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7 5.5	63.7	5.5	63.7
Less Variable costs (b)	0.0	0.0	0.0	38.3	9.09	68.7	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
(VARIABLE MAEGIN (c=a-b)	0.0	0.0	0.0	14.6	20.2	21.8	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
Production fixed cost Depreciation & Amortization General administration expence	0.0	0.0	0.0	1.5 13.3 0.8	13.3 13.3	1.7 13.3 1.4	1.7 13.3 1.4	1.7	1.7	1.7	1.7	1.7	1.7	1.7	17	1.7	1.7	1.7	1.1	1.7	7.1	11.1	7.1 1.1 4.1
Less Fixed costs (d)	0.0	0.0	0.0	15.5	16.2	16.4	16.4	16.4	10.8	10.8	10.8	10.8	10.8	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
OPERATIONAL MARGIN (e=c-d)	0.0	0.0	0.0	-0.9	4.1	5.4	5.1	5.1	10.7	10.7	10.7	10.7	10.7	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
Long term loan interests Short term Loan & Deposit interests	0.0	0.0	0.0	8.6	8.6	8.3	7.5	6.6	4.1	3.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less Finance costs (f)	0.0	0.0	0.0	8.6	8.6	8.3	7.5	9.9	4.1	3.1	2.0	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GROSS PROFIT (g=e-f)	0.0	0.0	0.0	-9.5	4.5	-2.8	-2.4	-1.5	6.6	7.6	8.7	6.6	10.6	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
(Loss Forward) (Taxable Income)	(0.0)	(0.0) (0.0)		(0.0) (-9.5) (-14.1) (-16.9) (-(0.0) (0.0) (0.0)	(-14.1)	(-16.9) (0.0)	.19.3) (0.0)	(-20.8) (0.0)	(-14.2)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Income Tax (h)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.2	2.2	2.2	4	4.3	4.3	4.3	4.3	4.3	4.3
NET PROFIT AFTER TAX (g-h)	0.0	0.0	0.0	-9.5	4.5	-2.8	-2.4	-1.5	9.9	7.6	8.7	9.9	9.3	15.1	15.1	15.1	13.0	13.0	13.0	13.0	13.0	13.0	13.0
RATIOS Gross Profit / Sales Net Profit after tax / sales				-18%	% % 9 %	6. 6. 8. 8.	99 98	-2%	7%	88 88 88 88	10%	11%	12%	19%	19%	19%	19%	19% 14%	19%	19%	19%	19% 14%	19%
	: .							. :				٠.									L	Page VI-i-33	333

Table VI-1-18 Net Income statement (Alternative 3B)

2021 2022 2023 18 19 20 100% 100% 100%	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.06 7.06 7.06	4.5	95.2 95.2 95.2		3.1 3.1 3.1	72.3	1,4	0.0	0.0 0.0 0.0	0.0 0.0 0.0	81.2 8		14.1 14.1 14.1	18.4 18.4 18.4	14.1 14.1 14.1 Page
	0.0	90.7	4.5	95.2	•	3.1	72.3	1.4	0.0	0.0	0.0	81.2		14.1	18.4	14.1
2019 16 100%	0.000	90.7	4.5	95.2		3.1	72.3	1.4	0.0	0.0	0.0	81.2		14.1	18.4	14.1
2018 15 100%	0.000	90.7	4.5	95.2		3.1	72.3	1.4	0.0	0.0	0.0	81.2		14.1	18.4	14.1
2017 14 100%	0.00	90.7	4.5	95.2		3.1	72.3	1.4	0.0	0.0	0.0	81.2		14.1	18.4	14.1
2016 13 100%	0.0	90.7	4.5	95.2		3.1	72.3	1.4	0.0	0.0	0.0	79.0		16.2	18.4	16.2
2015 12 100%	0.0	90.7	4.5	95.2		.	72.3		0.0	0.0	0.0	79.0		16.2	18.4	16.2
2014 11 100%	0.0	90.7		95.2		3.1	72.3	1.4	0.0	0.0	0.0			16.2	18.4	16.2
2013 10 100%	0.0	90.7		95.2		3.1				0.0	1.5			15.4	18.4	17.1
2012 9 100%	0.0	90.7		95.2		3.1		1		0.0		"		8.6	18.4	18.4
2011 8 100%	0.0	90.7		95.2		3.1	:			0.0	" '			0.7	18.4	18.4
2010 7 100%	0.0	90.7		95.2	:	3.1		1.4		0.0				0.7	18.4	18.4
2009 6 100%	0.0	90.7		95.2				1.4	4.1		13.6	11.	:	0.7	18.4	18.4
2008 5 100%	0.0	90.7	1 - 1	95.2		3.1				0.0	-			0.7	18.4	18.4
2007 4 100%	0.0		4.5	95.2		3.1				0.0				0.7	18.4	18.4
2006 3 100%	0.0		4.5	94.2		3.1	1 1	1.2	6.7			10.0	1 : .	1.3	15.0 17.9	17.9
2005 2 90%	0.0		4.0	82.6		0.0		0.8	7,0			78.9	1.00	3.7		15.0
2004 1 60%	0.0 8.6 0.0 8.6		2.6	59.8		8.6		0.0	7.0			0.0		1.7	-0.7	-0.7
2002 2003	0.0 43.4 0.0 43.4	100	0.0	43.4		37.0	1.	0.0	6.4	: 1		0.0	1	0.0	43.4	43.4
and the second second	21.8 41.8 0.0 63.6			63.6		62.1		000	1.6			0.0	1	0.0	-63.6	-8.3 -63.6
2001	8.3 0.0 0.0 8.3	0.0	0.0	8.3	,	8.3	0.0	0 0	0.0	0.0	0.0	0.0		0.0	83	34. A. A.
Calendar Year Project Year Capacity utilization(%)	Equity Long term loan Short term loan	Sales revenue	Total Inflow of Operation (a) Total Inflow of Other Income	TOTAL CASH INFLOW (A)		Total Increase of Fixed Assets (b)	Operation Cost (c)	Income tax (d)	Information I one form loon	Interest in Short term loan	car para Long term loan repayment Short term loan repayment	Loan repayment		TOTAL CASH FLOW (A-B)	I(Before Tax)	11.20% NPV: 7.0 CASH FLOW for IRROI(After Tax) [a-b-c-d] 10.41% NPV: 0.0
Calendar Year Project Year Capacity utilizz	E LV Totall	Š	Total I Total I	TOTAL C		Total I	Operal	Income		Interest	S I IS	Loan I	מעייסי	TOTAL C	CASILFIC	CASHEL

Table VI-1-18 Net Income statement (Alternative 3B)

(Unit: MillionS)

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Calendar Year	2001	2001 2002	2003	2004	2004 2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Project Year	φ	7	7	+-4	2	m	4	Ŋ	9	! ~	00	0	10		12	13	14	15	16	17	18	13	20
Capacity utilization(%)				%09	%06	100%	100%	100%	100%	2001	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Children of the Control of the Contr						1					··.·												
Cash in hand	0.0	0.0	0.0	1.7	5.3	6.7	7.4	8.1	8.8	9.5	10.1	18.7	34.2	50.4	66.7	82.9	0.76	111.1	125.2	139.3	153.3	167.4	181.5
Accounts Receivable	0.0	0.0	0.0	4.4	6.7	7.5	7.6	7.6	7.6	7.6	7.6	7.6	7.6	9.2	2.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
Other Liquid assets	0.0	0.0	0.0	1.9	2.8	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Finished products (a)	0.0	0.0	0.0		1.7	1.9	1.9	1.9	1.9	1.9	1.9	1 9	1 9	1.9	1.9	1.9	6.1	1.9	6.	1.9	1.9	1 9	1.9
Raw materials & supplies (b)	0.0	0.0	0.0	2.1	3.1	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Total Inventories (a+b)	0.0	0.0	0.0	3.2	4.9	5.4	5.4	5,4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
		1			3				· 											1	. (į
Total Current Assets (A)	0.0	8	0.0	0.0 11.2	19.7	22.8	23.5	24.2	24.9	25.6	26.3	34.9	50.3	66.5	82.8	99.0	113.1	127.2	141.3	155.4	169.5	183.5	197.6
Bonnowood & Building	α α	70.3	1073	102.7	89.4	76.1	62.8	49.5	41.8	34.1	26.4	18.8	11.1	10.0	8.9	7.8	6.7	5.5	4	8.3	2.2	1.1	0.0
Amortization	0.0	1.6	0.8	6.4	8,4	3.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0
								Á			٠.				-		1						
Total Fixed Assets (B)	8.3	71.9	71.9 115.3	109.0	94.2	79.3	64.4	49.5	41.8	34.1	26.4	18.8	11.1	10.0	8.9	7.8	6.7	5.5	4.4	3.3	2.2	1.1	0.0
	-	-																					
TOTAL ASSETS (A+B)	8.3	71.9	115.3	120.2	113.9	102.0	87.9	73.7	66.7	59.7	52.7	53.6	61.4	76.5	91.7	106.8	119.8	132.8	145.7	158.7	171.7	184.7	197.6
										٠													
LIABILITIES & EQUITY																							
Accounts Payable	0.0	. 0.0	0.0	3.2	4.8	5.3	5.3	5.3	5.3	ς. Ε	53	5.3	5.3	5.3	5.3	5.3	5.3	5.3	53	S.3	ω, . ω, .	ς. Ε	χ.
Other current liabilities	0.0	0.0	0.0	2.6	4.0	4.5	4.5	4 S	4.5	2.5	4 N	Α Σ	4.5	4.5	5.5	4 3	5.4	4 J	4 J	4 J	4 ئ	4 ئ	4.5
Short term loan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0-0	0.0
Total current liabilities	0.0	0.0	0.0	5.8	80	8.6	8.6	8.6	8.6	8.6	8.	8.6	8.6	9.8	89	8.6	8.6	و. ئ	8.6	8.6	8.6	8.6	o. o.
	ć		6	ć	0	. 02	6.13	2	0 0	26.2	, ,	-				: c	C	c	C			C	C
Long term loan	9 6	0 0	4.00	0.00	0.00	2 6	7	7 7 7	0.00	26.20	20.0	. i	9 6	9 6	9 0	3 6		2 6	9 6	9 0	2 6	9 6	2 0
I ofal Fixed haolithes	0.0	0.14	9.6	93.0	03.0) ()	7.70	<u>,</u>	£0.7		2	3	2	2	3	3	3	3	3	2	3	3	;
TOTAL MABILITIES (C)	0.0	41.8	85.2	9.66	97.9	88.8	77.1	64.4	50.8	36.1	20.4	11.4	9.8	9.8	9.8	9.8	9.8	8.6	9.8	9.8	8.6	9.8	8.6
1																							
Capital Stock	8.3	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1
Retainned Profit	0.0	0.0	0.0	-9.5	-14.1	-16.9	-19.3	-20.8	-14.2	-6.5	2.2	12.1	21.4	36.6	51.7	8.99	79.8	92.8	105.8	118.7	131.7	144.7	157.7
							7	**															
TOTAL EQUITY (D)	8.3	30.1	30.1	20.6	16.0	13.2	10.8	9.3	15.9	23.6	32.3	42.3	51.5	66.7	81.8	97.0	109.9	122.9	135.9	148.9	161.8	174.8	187.8
The state of the s	Ç		- 1		6.5	5	5	6		5	8	1		ì	5	0	0	6	1000	600	1		2001
TOTAL LIABILITIES & EQUITY (C+D)	8.8	(1.y	5.51	120.2	713.4	107.0	67.6	(3.7	00	7.40	7.70	0.5.0	91.4	0.07	77./	100.0	119.0	132.0	143.7	130.7][,	194:	0.751
																						1	_

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Table VI-1-18 Net Income statement (Alternative 3C)

										* . * * . * * . *				٠								6	
Calendar Year Project Year	2001 2002 2003	2002	2003	2004	2005 2006 2 3	÷	2007 2	100			1 1 - 1 - 1 - 1		A. 3		1						2022	2023	
Capacity utilization(%)				%09	90% 1	100% 1	100% 10	100% 10	100% 16	100% 10	100% 10	100% 100	100% 100%	100%	% 100%	z. 100%	% 100% 4	%001 4	%D01	100%	7007	700.0	
Equity	30 A	2.7	0.0	0.0	0.0	0.0	0.0	0:0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Long term loan	0.0		40.5 0.0	. 0	0.0	0.0	2 0	0.0	9. 1.		0.0					. :					0.0	0.0	
Short term loan Total Inflow of Funds	7.4	57.5	40.5	7.7	0.0	0.0	0.0	9.6	1.6		4.0										0.0	0.0	
Sales revenue	0.0	0.0	0.0	48.5	78.6	89.7	90.7	7.06	90.7	90.7	90.7	90.7 94	90.7 9(90.7 90	90.7 90.7	7 90.7	7 - 90.7	7 90.7	. 90.7	90.7	90.7	90.7	
Total Inflow of Operation (a)	0.0	0:0	0.0	48.5	78.6	89.7	90.7	7.06	90.7	90.7	90.7	90.7	90.7 90	90.7 90	7.06 7.06	7.90.7	7 90.7	7 90.7	90.7	90.7	90.7	90.7	
Total Inflow of Other Income	0.0 0.0	0.0	0.0	2.6	0.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5 4	4.5 4.5	5 4.5	5 4.5	4.5	4.5	4.5	4.5	
WAY THE THE TAXABLE TA	47	24.5	\$ QV	0 85	9.28	2 70	050	05 R	3, 8,96	0.80	99.2	95.2 9	95.2 9	95.2 95	95.2 95.2	2 95.2	2 95.2	2 95.2	95.2	95.2	95.2	95.2	
TOTAL CASH INFLOW (A)	5. /	5,7	202	70.7											1								
										1	•												
Total Increase of Fixed Assets (b)	7.4	55.4	33.3	7.7	0.0	0.0	0.0	0.0	0.0					-1			Ì	1	.		0.0	0.0	
Total Increase of Current Assets	0.0	0.0	0.0	1.9	2.8				3.1		3.1	3.1		3.1 3	3.1 3	3.1 3.1	1 3.1	3.1	3.1	3.1	3.1	3.1	
Operation Cost (c)	0.0	0.0	0.0	40.6	63.5	71.7	72.2	72.2		72.2		- 1	72.2 7.	- [`	1		ŀ	ĺ		72.2	72.2	
Income tax (d)	0.0	0.0	0.0	0.0	0.0	0.0		:]						- 1		2.2 4.	4.4		-		4.4	4.4	
V.A.T.	0.0	0.0	0.0	0.0	8.0	1.2	1.4	1.4		1.4	1.4		1.4			4 1.4		1.4	١	1.4	1.4	1.4	
Interest in I one term loan	0 0	2.1	7.1	7.7	7.7	7.3	6.4	4.	4	3,3	2.0	0.7								-	0.0	0.0	
Interest in Short term loan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3		0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Interest paid	0.0	2.1	7.1	7.7	7.7	7.3	6.4	5.4	4.4	3.4	2.3							I	1		0.0	0.0	
I one term loss renaument	0.0	0.0	0.0	0.0	6.2	11.3															0.0	0.0	
Short term loan repayment	0.0	0.0	0.0	0.0		0.0	0.0	0.0	9.0	1.6	2.7	4.0	0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Loan repayment	0.0	0.0	0.0	0.0	6.2	11.3	.		. [.	1		-		1		- 1	0.0	0.0	
TOTAL CASH OUTFLOW (B)	7.4	57.5	40.5	57.9	81.1	94.6	96.2	96.2	8.96	98.0	99.2	90.2	79.7	78.9 78	78.9 78	78.9 81.1	1 81.1	1 81.1	81.1	81.1	81.1	81.1	
											*.												
TOTAL CASH FLOW (A-B)	0.0	0.0	0.0	1.0	1.6	-0.4	-1.0	-0.4	-0.0	0.0	-0.0	5.0 1	5.6	6.3 16	16.3 16	16.3 14.1	1 14.1	1 14.]	14.1	14.1	14.1	14.1	
					-																		
CASH FLOW for IRROI(Before Tax) [a-b-c]	-7.4	-57.5	40.5	0.2 15.1	15.1	18.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5 1	18.5 18	18.5 18.	.5	5 18.5	5 18.5	5 18.5	18.5	18.5	18.5	
12.50% NPV : 16.1		•																					
CASH FLOW for IRROI(After Tax) [a-b-c-d]	-7.4 -57.5		40.5	0.2	15.1	18.0	18.5	18.5	18.5	18.5	18.5	18.5	17.0	16.3	16.3 16	16.3 14.1	.1 14.1	1 14.1	14.1	14.1	14.1	7	
11.74% NPV : 9.8	· · · · · · · · · · · · · · · · · · ·													-						L	Page VI-1-37	37	

Table VI-1-18 Balance Sheet (Alternative 3C)

(Unit: Million\$)

2001 2002 2003 2004 2005 2006 2 -3 -2 -1 1 2 3 60% 90% 100% 10	ounts Receivable 0.0 0.0 0.0 1.0 2.6 2.1 0.0 0.0 0.0 1.0 2.6 2.1 0.0 0.0 0.0 0.0 4.4 6.7 7.5 0.0 0.0 0.0 1.9 2.8 3.1 0.0 0.0 0.0 1.1 1.7 1.9 0.0 0.0 0.0 1.1 1.7 1.9 0.0 0.0 0.0 2.1 3.1 3.5 0.0 0.0 0.0 2.1 3.1 3.5	0.0 0.0 0.0 3.2 4.9 5.4 0.0 0.0 0.0 10.5 17.0 18.2	Equipment & Buildings 7.4 62.8 96.1 91.9 80.0 68.1 3.7 Amortization 0.0 2.1 9.2 7.4 5.5 3.7 Il Fixed Assets (B) 7.4 64.9 105.3 99.3 85.5 71.8 3.8	(A+B) 7.4 64.9 105.3 109.8 102.5 90.0	1.0 1.1 1.0		(C) 0.0 54.8 95.3 108.8 105.6 95.3 8 7.4 10.1 10.1 10.1 10.1 10.1 10.1 10.1 0.1	7.4 10.1 10.1 1.0 3.1 -5.3	TOTAL LIABILITIES & EQUITY (C+D) 7.4 64.9 105.3 109.8 102.5 90.0
2007 2008 2009 2010 4 5 6 7 100% 100% 100% 100%	1.2 0.8 0.8 0.8 7.6 7.6 7.6 7.6 3.1 3.1 3.1 3.1 1.9 1.9 1.9 1.9 3.5 3.5 3.5 3.5	5.4 5.4 16.9 1	56.2 44.2 37.3 30.5 1.8 -0.0 -0.0 -0.0 58.0 44.2 37.3 30.5	75.3 61.1 54.2 47.3	5.3 5.3 5.3 5.3 4.5 4.5 0.0 0.6 1.6 2.7 9.8 10.4 11.4 12.6	4 43.3	82.3 68.8 54.8 39.7 10.1 10.1 10.1 10.1 -17.0 -17.8 -10.6 -2.4	-7.7 -0.5	75.3 01.1 54.2 47.3
2011 2012 2013 8 9 10 100% 100% 100%	0.8 7.6 3.1 1.9	5,4 5,4 5,4 5,4 16,9 21,9 37,5	23.6 16.7 9 -0.0 -0.0 -0 23.6 16.7 9	40.4 38.6 47	5.3 5.3 5.3 4.5 4.5 4.5 4.0 0.0 0.0 13.8 9.8 9.8	9.7 1.4	23.5 11.2 9.8 10.1 10.1 10.1 6.8 17.3 27.4	16.9 27.4	40.4 38.8 47.3
3 2014 2015 0 11 12 % 100% 100%	<i>"</i>	, v	9.9 8.9 7.9 1.0 -0.0 -0.0 1.9 8.9 7.9	.3 62.6 77.9	3 5.3 5.3 5 4.5 4.5 0 0.0 0.0 8 9.8 9.8	0.0	8 9.8 9.8 1 10.1 10.1 4 42.7 58.0	52	0.70
2016 2017 13 14 100% 100%	7	5.4	6.9 5.9 -0.0 -0.0 6.9 5.9	93.2 106.4	5.3 5.3 4.5 4.5 0.0 0.0 9.8 9.8	0.0	9.8 9.8 10.1 10.1 73.3 86.5	83.4	'
2018 2019 15 16 100% 100%	98.4 112.6 7.6 7.6 3.1 3.1 1.9 1.9 3.5 3.5		4.9 3.9 -0.0 -0.0 4.9 3.9	119.5 132.6	5.3 5.3 4.5 4.5 0.0 0.0 9.8 9.8		10.1 10.1 99.6 112.7	109.6 122.8	
2020 2021 20 17 18 100% 100% 10		5.4	3.0 2.0 -0.0 -0.0 -	145.7 158.8 172.	5.3 4.5 0.0 9.8 9.8	0.0 0.0	9.8 9.8 10.1 10.1 1 125.8 138.9 15	135.9 149.0 16	000
2022 2023 19 20 100% 100%	54.9 169.0 7.6 7.6 3.1 3.1 1.9 1.9 3.5 3.5	5.4 5.4	1.0 0.0	2.0 185.1	5.3 5.3 4.5 4.5 0.0 0.0 9.8 9.8		9.8 9.8 10.1 10.1 152.1 165.2	162.1 175.2	119

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2. Economic Analysis

2.1 Purpose of Economic Analysis

The purpose of the financial analysis in the previous chapter is to estimate the feasibility of project financially and/or commercially in view of investor and/or financier. However, the feasibility of the investment on the project should also be justified in view of national and/or social economic background. Especially, the investment on a national project like this cold rolling mill should be determined by not only the benefit of the investor but also the benefit of the national economy in Viet Nam. Accordingly, the economic analysis is made to evaluate this project from these viewpoints.

2.2 Method of Estimation and Study Flow

The economic analysis of the construction of the new cold rolling mill is made based on the UNIDO method. UNIDO method is a famous one which is used in the world banking facilities such as World Bank, and is suitable for industrial projects especially. The concrete study flow is shown in Table VI-2-1.

TableVI-2-1 Study Flow of Economic Analysis

Review of Financial analysis

Shadow pricing of Financial costs & benefits

Classification for shadow pricing
Standard conversion factor(SCF)
Shadow exchange rate(SER)
Shadow pricing of traded / non-traded goods
Shadow pricing of land
Shadow wage rate of unskilled worker
Taxes (transfer payment)

Analysis of Economic cash flow

Economic cash flow
Economic internal rate of return(EIRR)
Sensitivity analysis

Impact of project

Foreign exchange Employment Industrial development Regional development

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2.3 Shadow pricing of Financial Costs & Benefits

- 2.3.1 Classification for Shadow Pricing
- (1) Classification for shadow pricing in construction cost Classification for shadow pricing in construction cost is shown in Table VI-2-2.

Table VI-2-2 Classification of Shadow Pricing for Construction Cost

	Shadow pricing
Equipment	-
Imported	No
Domestic	Adjusted by SCF
Labor cost	- 1
Skilled worker	No
Unskilled worker	Yes
Technical Assistance Fee	No
Engineering & Coordination Fee	No
Pre-Operational Expense	No
Inventry (Roll etc.)	No a state sast
Land	Yes
Import tax	Transfer item
Interest in construction	Transfer item

(2) Classification for shadow pricing in product prices and operation costs

Classification for shadow pricing in product prices and operation costs is shown in Table VI-2-3.

Table VI-2-3 Classification of Shadow Pricing in Product Prices and Operation Cost

Items		Shadow pricing
Product	No	CIF price is used in financial analysis
Material	No	Hot coil is imported totally
Labor cost	-	
Skilled worker	No	
Unskilled worker	Yes	
Depriciation and amortization	Transfer item	
Tax	Transfer item	
Interest for payment	Transfer item	
Land	Yes	
Other cost (US\$)	No	

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2.3.2 Standard Conversion Factor (SCF)

Generally, it is better to use each price specific to each item to estimate the value of the different non-traded items. However, it is complicated to calculate each conversion factor to estimate each value of item. It is also difficult to get the meaningful data for the precondition of study if the statistical data are not consolidated.

In the case that the amount of non-traded goods is small like this project, it is reasonable to make the calculation by using standard conversion factors to convert the market price of non-traded goods to border price. The calculation of standard conversion factors is made by using the following equation.

The import tax rate which is charged to goods traded in the ASEAN area will be reduced to 5% or below in Viet Nam according to the AFTA agreement. However, AFTA agreement does not regulate the import tax in trading with non-ASEAN nations. Although the possibility of over 5% import tax in trading with non-ASEAN nations remains, 5% is used as the average import tax rate, and 1.7% (average 1992~95) is used as export tax in the calculation of standard conversion factor in Viet Nam. The trade statistic data as precondition are shown in Table VI-2-4 and the result is described below.

Table VI-2-4 Trade Statistics in Viet Nam

(Mil.US\$) 1994 1997 1998 1995 1996 Average 10,350 10,460 8,817 Total import(M) 5,250 7,543 10,483 Total export(X) 4,054 4,198 7,330 9,145 9,365 6,818 source:world bank

$$M = 1.293 X$$

$$SCF \frac{M+X}{(M+Tm)+(X-Tx+Sx)}$$

$$= \frac{1.293X + X}{1.293X + (1.293X \times 0.05) + (X - 0.017X)}$$

$$= 0.9796$$

M/X = 8,817 / 6,818 = 1.293

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2.3.3 Shadow Exchange Rate (SER)

The local currency is used in converting the market price to the border price by standard conversion factor. In the case of using foreign exchange rate in economic analysis, it is necessary to estimate the foreign exchange by shadow exchange rate, namely shadow price of exchange itself. The shadow exchange rate in Viet Nam is calculated by the following equation.

2.3.4 Traded Goods and Non-Traded Goods

(1) Traded goods

The import goods of traded goods are estimated by c.i.f. price for financial analysis. The domestic goods are estimated by market price.

(2) Non-traded goods

Non-traded goods are only adjusted by shadow exchange rate because the ratio of non-traded goods in total expenditure is small.

2.3.6 Shadow Pricing of Land

Shadow pricing of land is estimated by the value of rice foregone which is expected to be harvested at the project site. Assumption is made based on the site survey, and the result of calculation is given below.

: 15.7ha

Assumption

Necessary land squaer for project

Land for agriculture

90% of necessary land area = 14.1ha

Yield of rice

: 1t/ha/year

Price of rice

: 1,000,000 VND / t

Shadow price of land

= 14.1ha $\times 1$ t/ha/y $\times 1,000,000$ VND/t

= 14.100,000 VND/year

 $= 14.100,000 \text{ VND/year} \div \text{SER}$

= 981 US\$/year

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2.3.7 Shadow Wage Rate of Unskilled Worker

Shadow wage rate of unskilled worker is calculated by using the current income from agriculture and relief work for the unemployed. The result of calculation is shown below. Assumptions are made based on the data of the site survey which are complemented by those of Master Plan Study on the Development of Steel Industry in the Socialist Republic in Viet Nam, 1998.

Assumption

Families living in the project area : 12 families
Workers in a family : 2 persons
Yearly working days for agreculture : 105 days / year

Sideline : 15% of the yield

Yearly working days for relief work: 30% of days on the working capacity

for unemployment = $0.3 \times (365-105-365/7)$ days / year

= 62 days / year

Wage for the relief work : 10,000 VND /day

Shadow Wage Rate (SWR)

SWR is the total amount of below 1),2) and 3)

1)Income from rice havesting = Rice harvest × Sales price of rice ÷ Workers in agriculture

= 15.7ha $\times 1$ t/ha/y $\times 1,000,000$ VND/t $\div (12$ families $\times 2$ persons)

= 654,167 VND/person/y = 654,000 VND/person/y

2)Sideline = 654,000VND/person/y $\times 0.15$

= 98,100VND/person/y

3) Relief work for the unemployed = 10,000 VND/day × 62 days/y

= 620,000VND/person/y

1)-3) Total income = 654,000VND/person/y

+ 98,100VND/person/y+620,000VND/person/y

= 1,372,100VND/person/y

= 1,372,100VND/person/y \times SER

= 95.5US\$/person/year

2.3.8 Taxes

Taxes are to be paid by companies to the nation. They are to go back to the society by realization of governmental activities. In economic analysis, the return on investment contributing to the social economy is calculated. Accordingly, in economic analysis the taxes are considered to be a part of the benefit from the project, whereas in financial analysis they are considered as cost.

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2.4 Analysis of Economic Cash Flow

2.4.1 Economic Cash Flow

Economic cash flow based on the above-mentioned preconditions is shown in TableVI-2-5.

2.4.2 Economic Internal Rate of Return (EIRR) and Sensitivity Analysis

The result of calculation of EIRR and sensitivity analysis for significant items are shown in Table VI-2-6.

Table VI-2-6 Sensitivity Analysis

		-10%	-5%	Base Case	5%	10%
					e a near tha an	
Investment	Base Case	9.36%	8.63%	7.96%	7.33%	6.75%
	Alternative:	7.55%	6.86%	6.23%	5.64%	5.09%
	Alternative?	9.04%	8.32%	7.66%	7.04%	6.46%
	Alternative :	9.52%	8.78%	8.11%	7.48%	6.89%
Sales Price	Base Case	6.01%	7.01%	7.96%	8.86%	9.73%
	Alternative 1	4.17%	5.23%	6.23%	7.18%	8.09%
	Alternative:	5.74%	6.72%	7.66%	8.55%	9.42%
···	Alternative ?	6.16%	7.15%	8.11%	9.02%	9.90%

EIRR is 7.96% in the base case, which is lower than FIRR (10.78%). This happens mainly because the shadow price of product in economic analysis does not include the import duty, which is included in the sales price for financial analysis.

2.5 Impact of Project

(1) Saving foreign exchange

This project which aims at the import substitution contributes to save foreign exchange in Viet Nam where all steel flat products are imported now. The result of calculation of saving foreign exchange for each case is shown in TableVI-2-7, and it can be seen that this project contributes to saving the foreign exchange of about 170 million US\$.

(2) Creation of new employment

The new cold rolling mill creates a new and large employment opportunity in construction and operation. 400 persons are to be engaged in the work for the operation of the equipment and the management of the mill. The total number of employment is estimated over 1000 persons for the new mill including supporting companies.

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- (3) Promotion of industrial development
 - Development of steel industry as main industry promotes that of supporting industries such as the machine manufactures for repair. It is expected that manufactures using the products of the new mill and the transportation of products and materials for these manufactures are developed. Considering the fact that the construction site for the cold rolling mill is a part of the existing industrial zone, and also expecting further creation of situation in which domestic and foreign companies are likely to start new factories, the industrial development with the cold rolling mill in its center is to be anticipated.
- (4) Promotion of regional development

There are many non-developed areas around the construction site. After the commencement of operation, social development is to be expected, too. Because the infrastructure such as roads and telecommunication is completed for the mill, community around the mill is to be formed, and also social institution such as educational facilities and medical facilities is to be formed.

2.6 Conclusion of Economic Analysis

Economic internal rate of return (EIRR) is lower than financial internal rate of return (FIRR). However, the saving of foreign exchange obtained by the substitution of imports contributes extremely to Vietnamese economy in which total amount of import exceeds that of export. As is shown in Table VI-2-4, the average amount of loss of foreign exchange, namely the difference between the total amounts of import and export is about two billion US dollars. On the other hand, the amount of saving of foreign exchange obtained by this project is about 200 million US dollars, which indicates that only one project has a possibility to reduce 10% of the average amount of loss of foreign exchange. In addition, this project is expected to contribute widely to the society, namely the creation of new employment and the promotion of both industrial and regional developments. Accordingly, it can be concluded that this project has a large value of investment even from the viewpoint of national economy.

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Table VI-2-5 Economic Cash Flow (Afternative 3A «Recommended Plan»)

			 	TableV	I-2-5 I	Sconom	TableVI-2-5 Economic Cash Flow (Alternative 3A <recommended rlan="">)</recommended>	Flow (Altern	ative 3.A	<reco< th=""><th>ттепс</th><th>ed Fla</th><th>$\widehat{\Delta}$</th><th></th><th></th><th>· .</th><th></th><th></th><th></th><th>Ġ</th><th>(Unit: MillionS)</th><th>aS)</th></reco<>	ттепс	ed Fla	$\widehat{\Delta}$			· .				Ġ	(Unit: MillionS)	aS)
Calondar Year Project Year Capacity utilization(%)	2001	2002	2003	2004 1 60%	2005	2006 3 100%	2007 4 100%	2008 5 100%	2009 6 100%	2010 7 100%	2011 8 100% 1	2012 9 100% 1	2013 10 100% 1	2014 2 11 100% 1	2015 2 12 100% 1	2016 2 13 100% 10	2017 2 14 100% 10	2018 2 15 100% 10	2019 2 16 100% 10	2020 2 17 100% 10	2021 2 18 100% 10	2022 2 19 100% 10	2023 20 100%
CASH FLOW for IRROI(Before Tax) (a) 10.95%	8.3	-64.4	45.1	0.7	15.0	17.9	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
Total Initial Investment Equipment	8.3	62.1 39.6	37.0 27.8	8.6											· · · · · · · · ·						•		
Unskilled worker in construction number of unskilled worker [Conversion by SWR (b)]	50	372	222	52 0.1																			
(1,200USS / 96USS) Domestic goods [Adjustment by SCF (c)]	1.0	5.9	4.2 0.1	9.0 0.0																			
(0.9796) Unskilled worker in operation number of unskilled worker				75	75	75	75	25.00.1	75	5,7 0.1	75	75	75	75	75	7.5	75	75	75	75	75 0.1	75	75
(1,200USS / 96USS) Duty Sales without duty	0.0	0.0	0.0	48.5	78.6	89.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7 86.4	90.7	90.7		100	90.7	90.7	·	90.7	90.7
[Transfer item (c)] Land lease Control of the Charles (f)	0.0	0.0	0.0	-2.3	-3.7	63	4 c	63	6 6	63	43	63	4.3]		4.3		03
		-63.6 44.4	44.4	9.7	11.6	14.0	14.5	14.5	14.5	14.5	14.5	14.5	14.5					1.		1		1	14.5
8.11%																			. • ''			9 %	

Calendar Year Project Year Project Year	2007	01 2002 -3 -2	2001 2002 2003 -3 -2 -1	2004		2005 2006 2 3 90% 100%	2007 4 100%	2008 5 100%	2009 6 100%	2010	2011 8 100%	2012 9 100%	2013 10 100%	2014 11 100%	2015 12 100%	2016 13 100%	2017 14 100%	2018 15 100% 1	2019 7 16 100% 1	2020 17 100%	2021 2 18 100% 10	2022 2 19 100% 1	2023 20 100%
CASH FLOW for IRROI(Before Tax) (a)	-8.6 -8.6		-64.8 45.9			17.9	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
Total Initial Investment Equipment	8.3 6.4	3 62.1 4 39.6	37.0	8.6																			
Unskilled worker in construction number of unskilled worker [Conversion by SWR (b)]	50	0 372 1 0.4	222	52 0.1					4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4														
(1,200US\$ / 96US\$) <u>Domestic goods</u>	1.0	0 5.9	4.2	9.0																			
(0,9796)				'																			
Unskilled worker in operation number of unskilled worker [Conversion by SWR (d)]				75	75	27 0.1	75	75	75	75	75	75 0.1	75 0.1	75	75	7.5	75	7.5	7.5	75	75	7.5	7.5
(1.200US\$ / 96US\$)																							
Duty Sales Sales without duty [Transfer item (e)]	0.0	0.0 0.0	0.0	48.5 46.2 -2.3	78.6 74.8 -3.7	89.7 85.4 4.3	90.7 86.4 4.3	90.7 86.4 4.3	90.7 86.4 4.3	90.7 86.4 4.3	90.7 86.4 4.3	90.7 86.4 4.3	90.7 86.4 4.3	90.7 4.3 4.3	90.7 86.4 4.3	90.7 86.4 4.3	90.7 86.4 4.3	90.7 86.4 4.3	90.7 86.4 4.3	90.7 86.4 4.3	90.7 86.4 4.3	90.7 86.4 4.3	90.7 86.4 4.3
Shadow price of land	(f) 0.	0.3 0.3	3 0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	50	0.3	0.3
(252,491S/y / 981S/y)				·									٠										

14.5 14.5 14.5 14.5 14.5 14.5 14.5 14.5 -2.6 11.6 14.0 14.5 14.5 14.5 14.5 14.5 14.5 -8.2 -64.0 -45.3 CASH FLOW for EIRR (a+b+c+d+e+f)

Calendar Year Project Year Capacity utilization(%)	2001	2002	2003	2004	2005 2 90%	2006 3 100%	2007 4 100% 1	2008 5 100%	2009 6 100%	2010 7 100% 1	2011 8 100% 1	2012 9 100%	2013 10 100% 1	2014 11 100% 1	2015 12 100% 1	2016 13 100% 1	2017 ; 14 100% 1	2018 2 15 100% 1	2019 2 16 100% 10	2020 17 100% 1	2021 2 18 100% 1	2022 2 19 100% 1	2023 20 100%
CASH FLOW for IRROI(Before Tax) (a) 9.42%	1.24	-8.8 -65.1	47.2	-1.9	13.5	16.3	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
Total Initial Investment Equipment	8.4 6.4	62.3	38.1 27.8	8.8		: 4																•	
Unskilled worker in construction number of unskilled worker (Conversion by SWR (b))	51	374	229	53																	•		1
(1,200USS / 96USS) Domestic goods	1.0	5.9	4,	0.6																			
[Adjustment by SCF (c)] (0.9796)	0.0	o O	100	20																			
Unskilled worker in operation number of unskilled worker [Conversion by SWR (d)]				75	75	75	7.5	75 0.1	75	75 0.1	75	75	75	75	75 0.1	75 0.1	75	7.5	75 0.1	75	75	75	75
1,200US\$ / 96US\$																							
Duty Sales Sales without duty [Transfer item (e)]	0.00	0.000	0.0	51.1 48.7 -2.4	\$2.8 78.8 -3.9	94.4 90.0 4.5	95.5 91.0 4.5	95.6 91.0 4.6	95.6 91.0 4.6	95.6 91.0 -4.6	95.6 91.0 4.6	95.6 91.0 4.6	95.6 91.0 -4.6	95.6 91.0 4.6	95.6 91.0 4.6	95.6 91.0 4.6	95.6 91.0 4.6	95.6 91.0 4.6	95.6 91.0 -4.6	95.6 91.0 4.6	95.6 91.0 -4.6	95.6 91.0 4.6	95.6 91.0 4.6
Land lease Transcrain hy Shadow write of land (0)		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
1 .		1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4															· -						

CASH FLOW for EIRR (a+b+c+d+e+f)

Table VI-2-5 Economic Cash Flow (Alternative 2)

Calendar Year Project Year Capacity utilization(%) CASH FLOW for IRROI(Before Tax) (a) Total Initial Investment Equipment Unskilled worker in construction number of unskilled worker [Conversion by SWR (b)] (1,200USS / 96USS) Domestic goods [Adjustment by SCF (c)] (0.9796) Unskilled worker in operation number of unskilled worker [Conversion by SWR (d)] (1,200USS / 96USS) Dutty	2001 -3 -3 -3 -3 -3 -3 -3 -3 -3 -3 -0.0 0.0 0.0	2002 -2 -2 65.9 62.2 39.6 5.9 0.4		2004 1 60% -0.7 -0.7 8.7 8.7 4.3 0.0 0.0 0.0	2004 2005 2006 1 2 3 60% 90% 100% -0.7 15.0 17.9 8.7 8.7 5.2 0.1 0.6 0.6 0.6 0.7 75 75 75 75 0.1 0.1 0.1						10 75	7 70 7	~ [~] =	" -	, n = 1	~ =		1, 2	7 2	10 2	6 2	6 1
Sales Sales without duty Transfer item (c)]	0.0	0.0	0:0	48.5	78.6	89.7 85.4 4.3	90.7 86.4 4.3	90.7 86.4 4.3	90.7 86.4 4.3	90.7 86.4 4.3	90.7 9 86.4 8 4.3	86.4 8 4.3	86.4 8	86.4 84.3	90.7 86.4 8 .	86.4 86.4 86.4 86.4	90.7 90.7 86.4 86.4 4.3 4.3	3 4.3	3 4.3	70.7 4 86.4 3 4.3	86.4	86.4 4.3
Land lease [Conversion by Shadow price of land (f)] (252,491\$/y / 981\$/y)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3 0	0.3 0.3	3 0.3	3 0.3	0.3	0.3

14.5 14.5 14.5 14.5 -8.4 -65.0 -47.4 -2.6 11.6 14.0 14.5 14.5 14.5 7.66% CASH FLOW for EIRR (a+b+c+d+e+f)

2023 20 100%	18.4		1]		75		<u>ا</u> د	86.4 4.3	0.3	
2022 20 19 100% 10	18.4						Σ			86.4 4.3	0.3	
2021 20 18 100% 10	18.4						. 27			86.4 8	0.3	
2020 20 17 100% 100	18.4						75	1		86.4 8 4.3	0.3	
•	18.4 18						75			86.4 4.3	0.3	
18 2019 15 16 % 100%		•				-	7.5				0.3	
7 2018 4 15 % 100%	.4 18.4					. •	75			3 4.3	0.3 0	
6 2017 3 14 6 100%	4 18.4									4 · 86.4 4.3	*	
5 2016 2 13 5 100%	18.4						5 75			86.4 4.3	3 0.3	
1 2015 12 100%	18.4						75			86.4	0.3	
2014 11 100%	18.4	9 	•				27.			86.4 4.3	0.3	
2013 10 100%	18.4						27.	3		86.4 4.3	0.3	
2012 9 100%	18.4						27.	0		86.4	0.3	
2011 8 100%	18.4						75	i i	00 7	86.4	0.3	
2010 7 100%	18.4		1.				75	i i	00	86.4	0.3	
2009 6 100%	18.4						75	i i	00	86.4 4.3	0.3	
2008 5 100%	18.4						75	T O	6	86.4	0.3	
2007 4 100%	18.4			· .			75	0.1	1	86.4 4.3	0.3	
2006 3 100%	17.9						75	0.1	, c	85.4 4.3	0.3	
2005 2 90%	15.0		. :				75	7.0	9	74.8	0.3	
2004 1 60%	-0.7	8.6	52 0.1		0.0		75	0.1	0	46.2 -2.3	0.3	
2003	-8.3 -64.4 45.1 -0.7	37.0	222		0.1				ć	300	6.0	
2001 2002 2003 -3 -2 -1	-64.4	62.1 39.6	372 0.4		5.9				(0.0	0.3	
2001	.3 5.3	8.3	50		1.0					0.0	0.3	
	10.95%							. :			(9)	
	x) (a)		El h				h		٠.		fland	
	efore Ta		nstructic ed worke (b)]	ે	(c)]		eration d worke	(d) (3)			v price o	(y)
(%)	RROI(B	estment	unskille SWR	sn96/:	SCF.		er in op unskille	SWR 7 96US		out duty	Shadov	/y / 981
Calendar Year Project Year Capacity utilization(%)	CASH FLOW for IRROI(Before Tax) (a)	Total Initial Investment Equipment	Unskilled worker in construction number of unskilled worker [Conversion by SWR (b)]	(1,200US\$ / 96US\$)	Domestic goods [Adjustment by SCF	(0.9796)	Unskilled worker in operation number of unskilled worker	Conversion by SWR (d) (1,200USS / 96USS)		Sales Sales without duty [Transfer item (c)]	Land lease Conversion by Shadow price of land (f)	(252,491S/y / 981S/y)
Calendar Year Project Year Capacity utiliza	SHFLO	Total Initia Equipment	Unskill nu [Conve	Ċ,	Domes [Adjust	0)	Unskill	Conve (1,	Dutx	Sa. Sal (Transf	Land lease Conversion	(2;
3 2 3	5 ·											19.

CASH FLOW for EIRR (a+b+c+d+e+f)

TableVI-2-7 Saving Foreign Exchange

(Unit: Mil.US\$)

4 - 0 0 0 0	7.31 56. 12 32.81 48.59 63.57 71.76 0.00 0.00 0.00 46.21 74.82 85.39
2003 2004 2005 -1 1 2 60% 90% 60% 90% 0.00 46.21 74.82 0.00 46.21 74.82 0.00 46.21 74.82 0.00 46.21 74.82 0.00 46.21 74.82 0.00 46.21 74.82 0.00 46.21 74.82 0.00 46.21 74.82 0.00 46.21 74.82 0.00 46.21 74.82 0.00 46.21 74.82 0.00 46.21 74.82 0.00 46.21 74.82 0.00 46.21 74.82 0.00 46.21 74.82 0.00 46.21 74.82 0.00 46.21 74.82 0.00 46.21 74.82	1 48.59 0 46.21
	2 32.81
2001 2002 -3 -2 -3 -2 7.31 56.12 0.00 0.00 7.31 -56.12 7.47 56.35 0.00 0.00 -7.47 -56.35 0.00 0.00 7.33 56.23 7.33 56.23 7.31 56.12 7.31 56.12	1 56.12
1,509.2 1,509.2 1,509.2 1,675.0 1,675.0 1,675.0 1,509.2 1,509.2 1,509.2 1,509.2 1,675.0	1,509.2