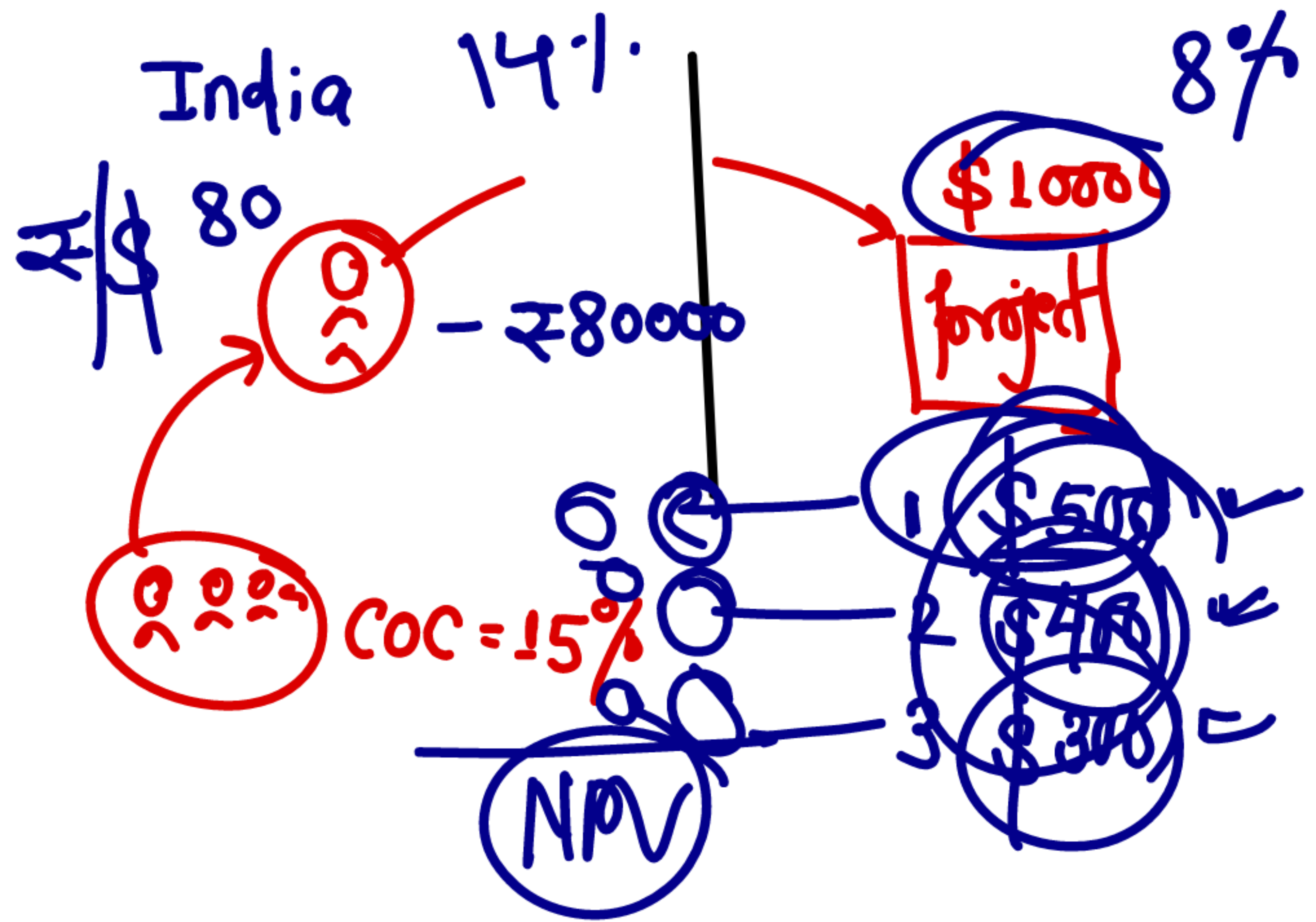# International Financial Management (IFM) (8 Marks)

PART 1   International Capital Budgeting

PART 2   ADR/GDR

PART 1 International Capital Budgeting

India 14%   8%

₹/$ 80

$ 10000

− ₹80000

project

COC = 15%

1 $ 500

2 $ 400

3 $ 300

NPV

In International Capital Budgeting, we Calculate NPV & there are two approaches to Calculate NPV

1. <u>Home Currency Approach</u>

   In home currency approach, we covert foreign currency cash flows into Home Currency Cash Flows at FR & Calculate NPV

   If FR is not given, then use IRP or PPP.

2. <u>foreign currency Approach</u>

   In foreign currency approach, we discount foreign currency cf at adjusted discounting Rate & Calculate NPV in foreign currency.

   After that convert it into home currency at SR

Example – 01

Indian company evaluating a project in US

Cost of project = $ 10,00,000

Cash inflows year

    1 = $ 3,00,000

    2 = $ 5,00,000

    3 = $ 6,00,000

Current spot rate ₹/$ = 75

Risk free rate in India   = 6% p.a.

Risk free rate in USA   = 2% p.a.

Required rate of return by Indian shareholders in ₹ term 16% p.a.

Evaluate the project using

(i) Domestic (Home) currency approach.

(ii) Foreign currency approach.

(Page No. 01)

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1 Home Currency Approach

W.N.1 FR (using IRP)

$$F = S \times \frac{1 + r_A}{1 + r_B}$$

$$1 \text{ year} = ₹75 \times \frac{1.06}{1.02} = ₹77.94$$

$$2 \text{ YEAR} = 77.94 \times \frac{1.06}{1.02} = ₹81.00$$

$$3 \text{ year} = 81 \times \frac{1.06}{1.02} = ₹84.18$$

Calculation of NPV

	0	1	2	3
CF ($)	−1000	300	500	600
Exchange Rate (W.N.1)	75	77.94	81	84.18
CF (₹)	−75000	23382	40500	50508
PVF (16%)	1.000	0.862	0.743	0.641
PV	−75000	20155	30092	32376

NPV = ₹ 7623

2. foreign currency Approach

W.N.1 Adjusted discounting Rate

$$\text{Disc. Rate in USA} = \left[\frac{1.16}{1.06} \times 1.02\right] - 1$$

$$= 11.62\%$$

	0	1	2	3
CF($)	−1000	300	500	600
(×) PVF(11.62%)	1.00	0.896	0.803	0.719
PV	−1000	268.80	401.50	431.40

NPV = $101.70

NPV(₹) = $101.70 × 75 = ₹7627

QUESTION – 01

ABC Ltd. is considering a project in US, which will involve an initial investment of US $ 1,10,00,000. The project will have 5 years of life. Current spot exchange rate is ₹ 48 per US $. The risk free rate in US is 8% and the same in India is 12%. Cash inflow from the project is as follows :

Year	Cash in flow
1	US $ 20,00,000
2	US $ 25,00,000
3	US $ 30,00,000
4	US $ 40,00,000
5	US $ 50,00,000

Calculate the NPV of the project using foreign currency approach. Required rate of return on this project is 14%.

H.W.
H.W Copy

QUESTION – 02

X Ltd., an Indian company, is considering a proposal to make an investment of USD 1,65,00,000 in Latin America. The project will have a life of 5 years. The current spot exchange rate is INR/USD 72. All investments and revenues will occur in USD. The USD and INR risk free rates are 8% and 12% respectively. The following cash flow is expected from the project.

Year	Cash Inflows (USD)
1	30,00,000
2	37,50,000
3	45,00,000
4	60,00,000
5	75,00,000

Assume required rate of return on the project as 14%.

You are required to calculate:

(i) The viability of the project using foreign currency approach.

(ii) What will be the impact if there is a withholding tax of 10% applicable on the project.

W.N.1 Disc. Rate in US

$$\text{Disc. Rate} = \left[\frac{1.14}{1.12} \times 1.08\right] - 1$$

$$= 9.93\%$$

YEAR	CF ($)	PVF (9.9)	PV.
1	3000000	0.910	2730000
2	3750000	0.827	3101250
3	4500000	0.753	3388500
4	6000000	0.685	4110000
5	7500000	0.623	4672500

PVCI $\qquad$ 18002250

(-) PVCO $\qquad$ 16500000

NPV $\qquad$ $ 1502250

$$\text{NPV}(₹) = \$1502250 \times 72$$
$$= ₹108162000$$

Since NPV is positive, hence project should be Accepted.

(ii) Calculation of NPV if withholding Tax = 10%

$$PVCI = 18002250$$

$$(-) \text{ Withholding Tax @ 10\%} = 1800225$$

$$\text{Net PVCI} = 16202025$$

$$(-) PVCO = 16500000$$

$$NPV(\$) = -297975$$

$$NPV(₹) = -297975 \times 72$$

$$= -₹ 21454200$$

Since NPV is negative, hence project should not be accepted.

Q3 H.W [H.W COPY]
Page 4

XY Limited is engaged in large retail business in India, It is contemplating for expansion into a country of Africa by acquiring a group of stores having the same line of operation as that of India.

The exchange rate for the currency of the proposed African country is extremely volatile. Rate of inflation is presently 40% a year. Inflation in India is currently 10% a year. Management of XY Limited expects these rates likely to continue for the foreseeable future.

Estimated projected cash flows, in real terms, in India as well as African country for the first three years of the project are as follows:

RDR

(RCP)

10%

	Year – 0	Year – 1	Year – 2	Year – 3
Cash flows in Indian ₹ (000)	−50,000	−1,500	−2,000	−2,500
Cash flows in African Rands (000)	−2,00,000	+50,000	+70,000	+90,000

AR

W.N.1 Calculation of Exchange Rate using PPP

$$f = \$ \times \frac{1+i}{1+i}$$

1st YEAR

$$f = AR6 \times \frac{1.40}{1.10} = 7.636$$

2nd YEAR
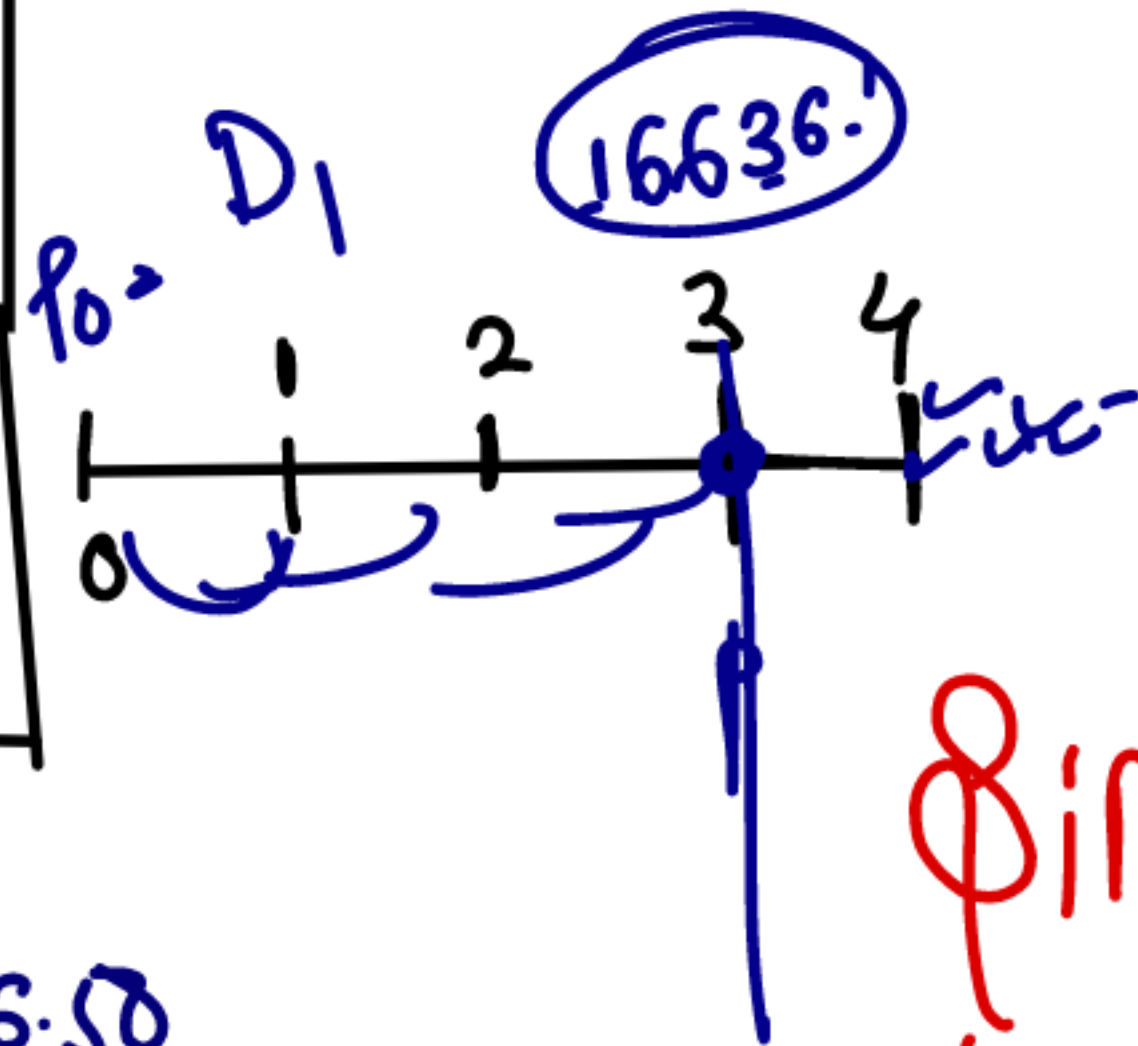
$$f = 7.636 \times \frac{1.40}{1.10} = 9.719$$

3rd YEAR

$$f = 9.719 \times \frac{1.40}{1.10} = 12.370$$

NPV

	0	1	2	3
RCF in AR	-200000	50000	70000	90000
NCF in AR (40%)	-200000	70000	137200	246960
Exchange Rate (AR/₹)	6.00	7.636	9.719	12.370
NCF in ₹ — ①	-33333	9167	14117	19964
RCF in India	-50000	-1500	-2000	-2500
NCF In India (10%)—②	-50000	-1650	-2420	-3327.50
Total CF (i+ii)	-83333	7517	11697	16636.50
(x) PVf (20%)	1.00	0.833	0.694	0.579

$$PVCI = -59321.09$$

$$\text{Terminal Value}\ (3^{rd}\ \text{YEAR}) = \frac{₹\ 16636.50}{0.20}$$

$$= ₹\ 83182.50$$

$$P.V.\ of\ T.V.\ (83182.50 \times 0.579) = ₹\ 48162.67$$

$$NPV = -59321.09 + 48162.67 = -11158$$

D_1 $10°$

$\boxed{16636.}$

Since NPV is Negative, hence project should be rejected.

XY Ltd. assumes the year 3 nominal cash flows will continue to be earned each year indefinitely. It evaluates all investments using nominal cash flows and a nominal discounting rate. The present exchange rate is African Rand 6 to ₹ 1.

AR/₹

You are required to calculate the net present value of the proposed investment considering the following:

(i) African Rand cash flows are converted into rupees and discounted at a risk adjusted rate.

(ii) All cash flows for these projects will be discounted at a rate of 20% to reflect it's high risk.

(iii) Ignore taxation.

	Year – 1	Year - 2	Year - 3
PVIF @ 20%	.833	.694	.579

QUESTION – 05

XYZ Ltd., a company based in India, manufactures very high quality modem furniture and sells to a small number of retail outlets in India and Nepal. It is facing tough competition. Recent studies on marketability of products have clearly indicated that the customers are now more interested in variety and choice rather than exclusivity and exceptional quality. Since the cost of quality wood in India is very high, the company is reviewing the proposal for import of woods in bulk from Nepalese supplier.

The estimate of net Indian (₹) and Nepalese Currency (NC) cash flows in Nominal terms for this proposal is shown below:

Year	Net Cash Flow (in millions)			
	0	1	2	3
NC	-25.000	2.600	3.800	4.100
Indian (₹)	0	2.869	4.200	4.600

The following information is relevant:

(i) XYZ Ltd. evaluates all investments by using a discount rate of 9% p.a. All Nepalese customers are invoiced in NC. NC cash flows are converted to Indian (₹) at the forward rate and discounted at the Indian rate.

(ii) Inflation rates in Nepal and India are expected to be 9% and 8% p.a. respectively. The current exchange rate is ₹ 1= NC 1.6

Assuming that you are the finance manager of XYZ Ltd., calculate the net present value (NPV) and modified internal rate of return (MIRR) of the proposal.
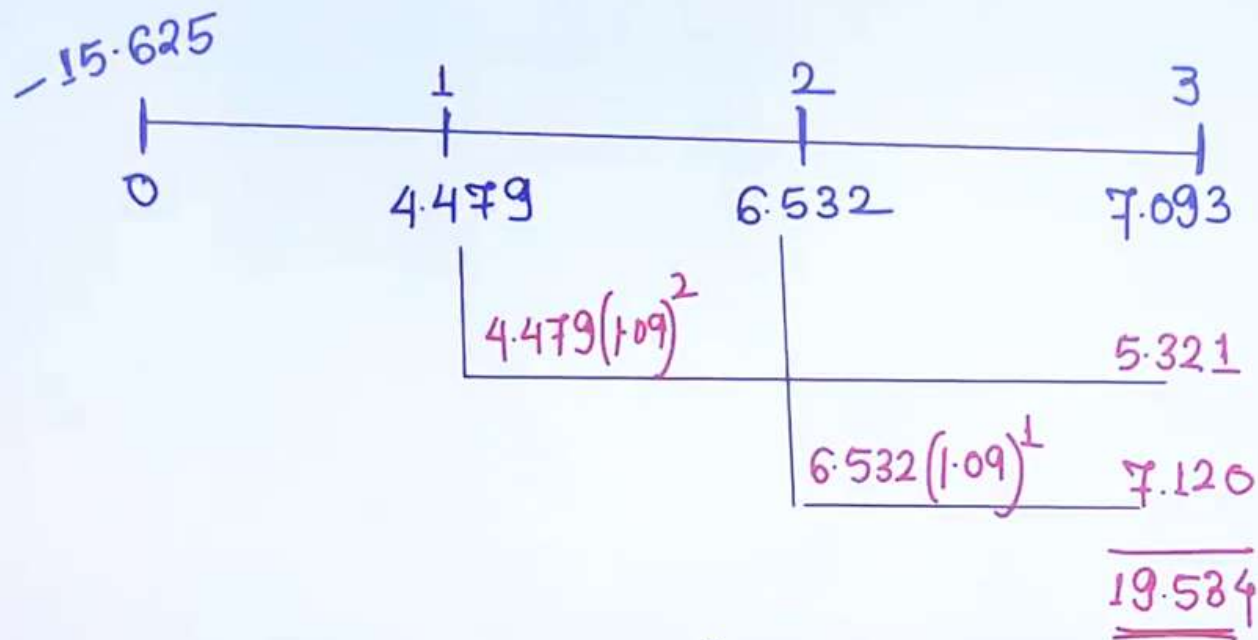
① Calculation of NPV

	0	1	2	3
NC	−25	2.600	3.800	4.100
Exchange Rate (NC/₹)	1.60	1.6148	1.6297	1.6448
Cf (₹)	−15.625	1.6101	2.3317	2.4927
Cf (India)	0	2.869	4.2000	4.6000
Total Cf	−15.625	4.4791	6.5317	7.0927
(×) PVf (9%)	1.000	0.917	0.842	0.772

NPV = − 0.542

② Modified IRR

-15.625

```
   0        1           2            3
   |--------+-----------+------------|
 4.479    6.532       7.093
```

$4.479(1.09)^2$ 5.321

$6.532(1.09)^1$ 7.120

$\overline{19.584}$

$$15.625(1+r)^3 = 19.534$$

$$r = \left[\sqrt[3]{\frac{19.534}{15.625}} - 1\right] \times 100 = 7.73\%$$

QUESTION – 06

DD Ltd. a company based in India manufactures good quality of leather bags and sells to retail outlets in India and USA. The cost of quality leather in India is very high, the company is reviewing the proposal of importing of leather in bulk from USA supplier. The estimate of net US $ and Indian ₹ Currency Cash Flows in nominal terms for this proposal is given below:

	Net Cash Flow (in Lakh)			
Year	0	1	2	3
In US $	(25)	5	7	8
In ₹	0	60	80	90
If not imported cost of leather to be purchased in India (in ₹)	400	450	500	600

Other information:

(i) DD Ltd. evaluates all investments by using discount rate of 9% p.a.

(ii) All US customers are invoiced in US $. US $ Cash flows converted into ₹ at the forward rate and discounted at Indian Rate.

(iii) Inflation in USA and India are expected to be 9% and 8% respectively.

(iv) The current exchange rate 1 US $ = ₹ 74

You are required to Calculate Net Present Value and recommend the decision. Present value factor @ 9% are as under:

1 Year	2 Year	3 Year
0.917	0.842	0.772

(Exam December - 2021)

(Page No. 10)

Calculation of FR using PPP

$$F = S \times \frac{1+i_A}{1+i_B}$$

1 YEAR $= ₹74 \times \dfrac{1.08}{1.09} = ₹73.32$

2 YEAR $= ₹73.32 \times \dfrac{1.08}{1.09} = ₹72.65$

3 YEAR $= ₹72.65 \times \dfrac{1.08}{1.09} = ₹71.98$

Calculation of NPV (Lakhs)

	0	1	2	3
CF ($)	(25)	5	7	8
Exchange Rate	74	73.32	72.65	71.98
CF (₹)	(1850)	366.60	508.55	575.84
India CF (₹)	—	60	80	90
Cost of Leather	(400)	(450)	(500)	(600)
CF	(2250)	(23.46)	88.55	65.84
(X) PVF	1	0.917	0.842	0.772

NPV = (2146.07)

Since NPV is negative, hence project should be rejected.

QUESTION – 07

A multinational company is planning to set up a subsidiary company in India (where hitherto it was exporting) in view of growing demand for its product and competition from other MNCs. The initial project cost (consisting of Plant and Machinery including installation) is estimated to be US$ 500 million. The net working capital requirements are estimated at US$ 50 million. The company follows straight line method of depreciation. Presently, the company is exporting two million units every year at a unit price of US$ 80, its variable cost per unit being US$ 40.

The Chief Financial Officer has estimated the following operating cost and other data in respect of proposed project:

(i) Variable operating cost will be US $ 20 per unit of production;

(ii) Additional cash fixed cost will be US $ 30 million p.a. and project's share of allocated fixed cost will be US $ 3 million p.a. based on principle of ability to share;

(iii) Production capacity of the proposed project in India will be 5 million units;

(iv) Expected useful life of the proposed plant is five years with no salvage value;

(v) Existing working capital investment for production & sale of two million units through exports was US $ 15 million;

(vi) Export of the product in the coming year will decrease to 1.5 million units in case the company does not open subsidiary company in India, in view of the presence of competing MNCs that are in the process of setting up their subsidiaries in India;

Export
S.P = 80
VC = 40
2M
1.5M — 60M

India   USA
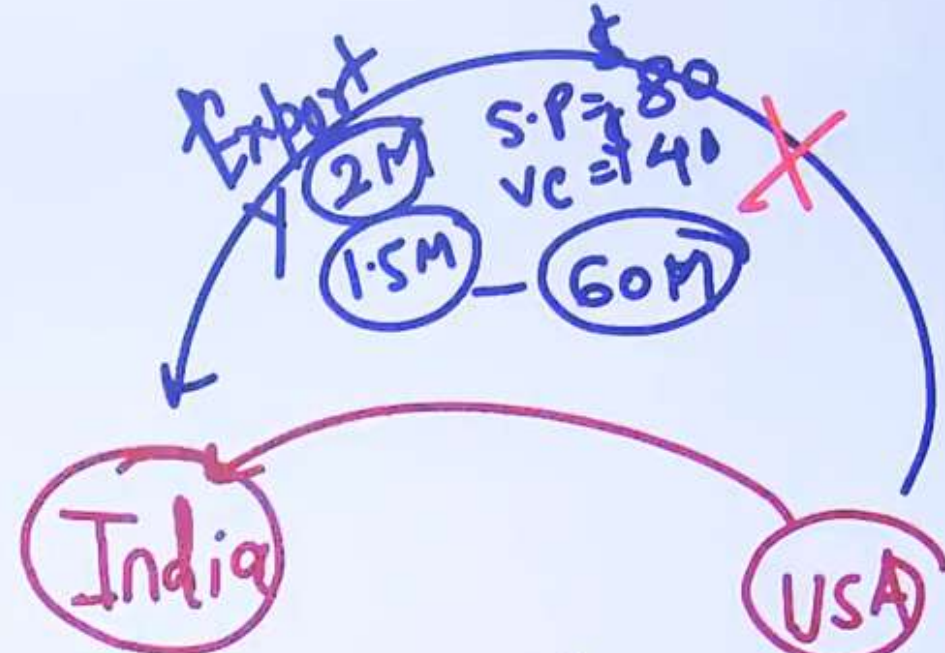
units
5M

VC = $20 P.U.
FC = $30M

Cost = $500 M
WC = $50 M
Dep = $1M
life = 5 years.
Salvage = 0

(vii)   Applicable Corporate Income Tax rate is 35%, and

(viii)   Required rate of return for such project is 12%.

Assuming that there will be no variation in the exchange rate of two currencies and all profits will be repatriated, as there will be no withholding tax, estimate Net Present Value (NPV) of the proposed project in India.

Present Value Interest Factors (PVIF) @ 12% for five years are as below:

Year	1	2	3	4	5
PVIF	0.8929	0.7972	0.7118	0.6355	0.5674

Incumental CFAT

$$210.50 - 39$$

$$= \$ 171.50 \, M$$

CFAT if Export

Sales (1·5 × 80) =	120
(−)VC (1·5 × 40) =	60
PBT	60
(−) Tax @ 35%	21
CFAT	39

CFAT [New project]

Sales (5 × 80) =	400
(−)VC (5 × 20) =	100
(−) FC	30
CFBT —①	270
	100
(−) Dep ($\frac{500}{5}$)	170
PBT —②	59.50
Tax @ 35% —②	
CFAT	210.50

Calculation of NPV (million)

	YEAR	PVf	Amt	P.V.
emental e.o				
Cost of Machine	0	1.000	$500	$500
crementl wc	0	1.000	$35	$35
($50m - $15m) (A)				$535
ementl C£				
remental CFAT	1-5	3.6048	$171.50	$618.22
cementl wc	5	0.5674	$35	$19.86
(B)				$638.08
NPV (B-A)				$103.08

Question- 10

A US company wants to setup a manufacturing plant in India which requires an initial outlay of ₹ 8 Million. It is expected to have a useful life of 5 years with a salvage of ₹ 2 Million. The company follows straight line method of depreciation. To support additional level of activity, investment would require one time additional working capital of ₹ 1 Million.

Since the cost of production lower in India, the variable cost of production would be ₹ 30 per unit. Additional fixed cost per annum is estimated at ₹ 0.5 Million. The company is projecting its annual sales to 80000 units at the price of ₹ 100 per unit. Applicable tax rate to the company is 34% and its cost of capital is 8%.

Inflation rates in US and India are expected to be 8% and 9% respectively. The current exchange rate is ₹ 72 per US Dollar.

Assuming that all profit will be repatriated every year and there will be no withholding taxes, estimate the net present value of the proposed project in India and evaluate its feasibility.

PVF @ 8% for the five years are as under:

Rate	1 Year	2 Year	3 Year	4 Year	5 Year
8%	0.926	0.857	0.794	0.735	0.681

(Exam December - 2021)

(Page No. 16)

$VC = ₹30 \, P.4$

$FC = ₹0.50 \, m$

$Sales = 80000 \, Unit \, ⓐ \, ₹100$

Investment

India

Project

US

$Cost \, of \, Project = ₹8M$

$life = 5$

$Salvage = ₹2M$

$Dep = 8cm$

$WC = ₹1M$

W.N.1 Calculation of Exchange Rates

YEAR	Calculation	Exchange Rate
1	$₹\ 72 \times \dfrac{1.09}{1.08}$	72.67
2	$₹\ 72.67 \times \dfrac{1.09}{1.08}$	73.34
3	$₹\ 73.34 \times \dfrac{1.09}{1.08}$	74.02
4	$₹\ 74.02 \times \dfrac{1.09}{1.08}$	74.71
5	$₹\ 74.71 \times \dfrac{1.09}{1.08}$	75.40

W.N.2 Calculation of CFAT (₹)

Sales (80000 × 100) = ₹ 80 00 000

(−) VC (80000 × 30) = 24 00 000

(−) FC   5 00 000

CFBT ①   51 00 000

(−) Dep $\left[\dfrac{80 00 000 - 20 00 000}{5}\right]$ 12 00 000

PBT   39 00 000

Tax @ 34% ——— ②   13 26 000

CFAT (i−ii)   ₹ 37 74 000

W.N.3 Convert CF in $

YEAR	CF(₹)	Exchange Rate	CF($)	PVF	P.V
0	(90 00 000)	72	($125000)	1	(125000)
1	37 74 000	72.67	51933.40	0.926	48090.33
2	37 74 000	73.34	51458.96	0.857	44100.33
3	37 74 000	74.02	50986.22	0.794	40483.06
4	37 74 000	74.71	50515.32	0.735	37128.76
5	37 74 000	75.40	50053.05	0.681	34086.13
5	30 00 000	75.40	39787.80	0.681	27095.49

NPV = $105984.10

Since NPV is positive, hence project should be accepted.

QUESTION – 11

A USA based company is planning to set up a software development unit in India. Software developed at the Indian unit will be bought back by the US parent at a transfer price of US $10 millions. The unit will remain in existence in India for one year; the software is expected to get developed within this time frame.

The US based company will be subject to corporate tax of 30 per cent and a withholding tax of 10 per cent in India and will not be eligible for tax credit in the US. The software developed will be sold in the US market for US $ 12.0 millions. Other estimates are as follows:

Rent for fully furnished unit with necessary hardware in India
₹ 15,00,000

Man power cost (80 software professional will be working for 10 hours each day) ₹ 400 per man hour

Administrative and other costs ₹ 12,00,000

Advise the US Company on the financial viability of the project. The rupee-dollar rate is ₹48/$.

Note: Assume 365 days a year.

(SM New Syllabus, PM, RTP Nov – 2021 & Exam May - 2017)

(Page No. 21)

India   USA

Software → US $10M → US $12M

Income Tax = 30%

Withholding = 10%
Tax

Rent = ₹ 1500000
₹ 11680000
1200000

Calculation of Cost of Software in ₹

Sales ($100000000 × 48) = ₹ 4800000000

(−) Cost

Rent	15000000	
Man power Cost	1168000000	
(80×10×400×365)		
Administration	12000000	₹ 1195000000
PBT		₹ 3605000000
		₹ 1081500000
		₹ 2523500000
PAT		
Withholding Tax @ 10%.		₹ 252350000

Tax @ 30%

Cost of Software (₹)

Cost	₹ 1195000000
Income Tax	₹ 1081500000
Withholding Tax	₹ 252350000
Total cost (₹)	₹ 2528850000

$$\text{Total Cost (\$)} = \frac{₹ 2528850000}{48}$$

$$= \$ 5268437.50$$

or

$$= \$ 5.2684 \, M.$$

Since cost of Software $5.2684 m is less than selling price $12m, hence project should be accepted.

QUESTION – 12

A proposed foreign investment involves creation of a plant with an annual output of 1 million units. The entire production will be exported at a selling price of USD 10 per unit.

At the current rate of exchange dollar cost of local production equals to USD 6 per unit. Dollar is expected to decline by 10% or 15%. The change in local cost of production and probability from the expected current level will be as follows:

Decline in value of USD (%)	Reduction in local cost of production (USD/unit)	Probability
0	–	0.4
10	0.30	0.4
15	0.15 Additional reduction	0.2

The plant at the current rate of exchange will have a depreciation of USD 1 million annually. Assume local Tax rate as 30%.

You are required to find out:

(i) Annual Cash Flow After Tax (CFAT) under all the different scenarios of exchange rate.

(ii) Expected value of CFAT assuming no repatriation of profits.

(iii) Viability of the investment proposal assuming an initial investment of USD 25 million on plant and working capital with a required rate of return of 11% on investment and on the basis of CFAT arrived under option (ii). The CFAT will grow @ 3% per annum in perpetuity.

① Calculation of CFAT

	I 6	II 5.7	III 5.55
Sales (10 00 000 × $10)	1 00 00 000	1 00 00 000	1 00 00 000
(−) Cost of production	60 00 000	57 00 000	55 50 000
CFBT. — ①	40 00 000	43 00 000	44 50 000
(−) Depreciation	10 00 000	9 00 000	8 50 000
PBT	30 00 000	34 00 000	36 00 000
Tax @ 30%. — ②	9 00 000	10 20 000	10 80 000
CFAT (i-ii)	31 00 000	32 80 000	33 70 000

② Expected CFAT

Expected CFAT = $(3100000 \times 0.4) + (3280000 \times 0.4)$

$+ (3370000 \times 0.2) = \$3226000$

③ Calculation of NPV

$$PVCI = \frac{CFAT_1}{Ke - g} \quad \frac{\$3226000(1.03)}{0.11 - 0.03}$$

$= \$41534750$

$NPV = \$41534750 - \$25000000 = 16534750$

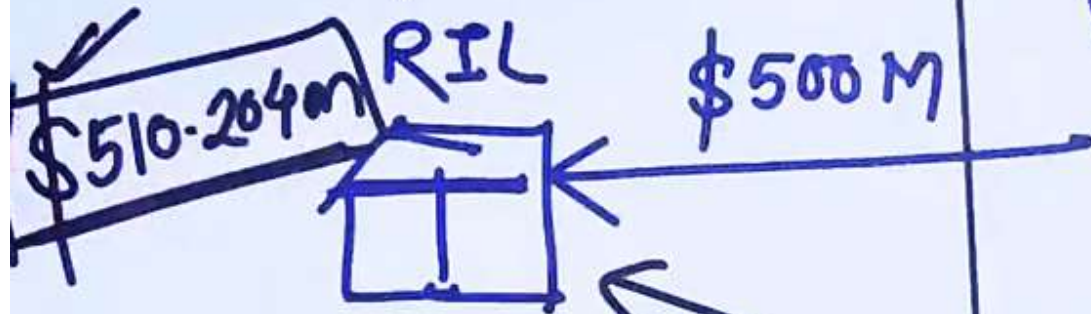Since NPV is positive, hence project should be Accepted.

② ADR/GDR

India

$510.204m

RIL

$500 M

float abon cool 2%

US S.E

$

NYSE

ADR (American depository Recept)

LSE

GDR

₹/$ 80

Share price = ₹400 (FV 100)

Disc. = 10%

1 GDR = 3 shares

Issue price of 1 GDR = 400 × 90% × 3 = ₹1080

$$1080/80 = \$13.50$$

QUESTION – 13

Odessa Limited has proposed to expand its operations for which it requires funds of $ 15 million, net of issue expenses which amount to 2% of the issue size. It proposed to raise the funds though a GDR issue. It considers the following factors in pricing the issue:

(i) The expected domestic market price of the share is ₹ 300

(ii) 3 shares underly each GDR

(iii) Underlying shares are priced at 10% discount to the market price

(iv) Expected exchange rate is ₹ 60/$

You are required to compute the number of GDR's to be issued and cost of GDR to Odessa Limited, if 20% dividend is expected to be paid with a growth rate of 20%.

(Practice Manual & Exam Nov - 2014)

(Page No. 25)

- ## Issue Size

  fund required = $15 M

  floatation cost = 2%

  $$\text{Issue Size} = \frac{\$15M}{0.98} = \$15.306\,M$$

- ## Issue price of GDR

  price of share = ₹300

  Issue price = 300 × 90% = 270

  1 GDR = 3 shares

  $$\text{Issue price of GDR} = \frac{₹270 \times 3}{60}$$

  $$= \$13.5$$

$$\text{No. of GDR} = \frac{\$15.306}{\$13.50} = 1.1338 \, M$$

② Cost of GDR

$$D_1 = ₹10 \times 20\% = ₹2$$

[It is assume that F.V. = ₹10]

Dividend per GDR = 2×3 share = ₹6

Net proceeds (P_0) = Issue price per GDR - floatation cost

$$= ₹270 \times 3 \times 98\% = ₹793.80$$

$$K_e = \frac{₹6}{793.80} + 0.20 = 20.76\%$$

QUESTION – 14

M/s. Raghu Ltd. is interested in expanding its operation and planning to install manufacturing plant at US. It requires 8.82 million USD (net of issue expenses/ floatation cost) to fund the proposed project. GDRs are proposed to be issued to finance this project. The estimated floatation cost of GDRs is 2%.

Additional information:

(i)   Expected market price of share at the time of issue of GDR is ₹ 360 (Face Value ₹ 100)

(ii) Each GDR will represent two underlying Shares.

(iii) The issue shall be priced at 10% discount to the market price.

(iv) Expected exchange rate is INR/USD 72.

(v)   Dividend is expected to be paid at the rate of 20% with growth rate of 12%.

   (1) You, as a financial consultant, are required to compute the number of GDRs to be issued and cost of the GDR.

   (2) What is your suggestion if the company receives an offer from a US Bank willing to provide an equivalent loan with an interest rate of 12%?

   (3) How much company can save by choosing the option as recommended by you?

(RTP May – 2022, MTP April – 2022 & Exam July - 2021)

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① No. of GDR's & Cost of GDR

$$\text{Issue Size} = \frac{\$8.82\,m}{0.98} = \$9\,M$$

Issue price of GDR

$$= ₹360 \times 90\% \times 2$$
$$= ₹648$$
$$= \frac{₹648}{72} = \$9$$

$$\text{No. of GDR's} = \frac{\$9m}{\$9} = 1M$$

Cost of GDR

Dividend per GDR $= ₹100 \times 20\% \times 2 = ₹40$

Net proceeds per GDR $= ₹648 \times 98\% = ₹635.04$

$$\text{Cost of GDR} = \frac{D_1}{P_0} + g$$

$$= \frac{₹40}{₹635.04} + 0.12 = 18.30\%$$

② Since offer from US Bank (12%) is less than Cost of GDR (18.30%), hence offer from US Bank should be accepted.

③ Savings $(18.30\% - 12\%) = 6.30\%$