

# 11

## Foreign Direct Investment (FDI), Foreign Institutional Investment (FIIs) and International Financial Management

---

### Question 1

*Write a short note on Instruments of International Finance.*

### Answer

The various financial instruments dealt with in the international market are briefly described below:

1. **Euro Bonds:** A *Eurobond* is an international bond that is denominated in a currency not native to the country where it is issued. Also called external bond e.g. A Yen floated in Germany; a yen bond issued in France.
2. **Foreign Bonds:** These are debt instruments denominated in a currency which is foreign to the borrower and is denominated in a currency that is native to the country where it is issued. A British firm placing \$ denominated bonds in USA is said to be selling foreign bonds.
3. **Fully Hedged Bonds:** In foreign bonds, the risk of currency fluctuations exists. Fully hedged bonds eliminate that risk by selling in forward markets the entire stream of interest and principal payments.
4. **Floating Rate Notes:** These are debt instruments issued upto 7 years maturity. Interest rates are adjusted to reflect the prevailing exchange rates. They provide cheaper money than fixed rate debt instruments; however, they suffer from inherent interest rate volatility risk.
5. **Euro Commercial Papers:** Euro Commercial Papers (ECPs) are short-term money market instruments. They are for maturities for less than a year. They are usually designated in US dollars.

### Question 2

*Write a short note on Euro Convertible Bonds.*

**Answer**

**Euro Convertible Bonds:** They are bonds issued by Indian companies in foreign market with the option to convert them into pre-determined number of equity shares of the company. Usually price of equity shares at the time of conversion will fetch premium. The Bonds carry fixed rate of interest.

**The issue of bonds may carry two options:**

**Call option:** Under this the issuer can call the bonds for redemption before the date of maturity. Where the issuer's share price has appreciated substantially, i.e., far in excess of the redemption value of bonds, the issuer company can exercise the option. This call option forces the investors to convert the bonds into equity. Usually, such a case arises when the share prices reach a stage near 130% to 150% of the conversion price.

**Put option:** It enables the buyer of the bond a right to sell his bonds to the issuer company at a pre-determined price and date. The payment of interest and the redemption of the bonds will be made by the issuer-company in US dollars.

**Question 3**

*Write short note on American Depository Receipts (ADRs).*

**Answer**

**American Depository Receipts (ADRs):** A depository receipt is basically a negotiable certificate denominated in US dollars that represent a non- US Company's publicly traded local currency (INR) equity shares/securities. While the term refer to them is global depository receipts however, when such receipts are issued outside the US, but issued for trading in the US they are called ADRs.

An ADR is generally created by depositing the securities of an Indian company with a custodian bank. In arrangement with the custodian bank, a depository in the US issues the ADRs. The ADR subscriber/holder in the US is entitled to trade the ADR and generally enjoy rights as owner of the underlying Indian security. ADRs with special/unique features have been developed over a period of time and the practice of issuing ADRs by Indian Companies is catching up.

Only such Indian companies that can stake a claim for international recognition can avail the opportunity to issue ADRs. The listing requirements in US and the US GAAP requirements are fairly severe and will have to be adhered. However if such conditions are met ADR becomes an excellent sources of capital bringing in foreign exchange.

These are depository receipts issued by a company in USA and are governed by the provisions of Securities and Exchange Commission of USA. As the regulations are severe, Indian companies tap the American market through private debt placement of GDRS listed in London and Luxemburg stock exchanges.

### 11.3 Strategic Financial Management

---

Apart from legal impediments, ADRS are costlier than Global Depository Receipts (GDRS). Legal fees are considerably high for US listing. Registration fee in USA is also substantial. Hence, ADRS are less popular than GDRS.

#### Question 4

*Write a short note on Global Depository Receipts (GDRs).*

#### Answer

**Global Depository Receipt:** It is an instrument in the form of a depository receipt or certificate created by the Overseas Depository Bank outside India denominated in dollar and issued to non-resident investors against the issue of ordinary shares or FCCBs of the issuing company. It is traded in stock exchange in Europe or USA or both. A GDR usually represents one or more shares or convertible bonds of the issuing company.

A holder of a GDR is given an option to convert it into number of shares/bonds that it represents after 45 days from the date of allotment. The shares or bonds which a holder of GDR is entitled to get are traded in Indian Stock Exchanges. Till conversion, the GDR does not carry any voting right. There is no lock-in-period for GDR.

**Impact of GDR's on Indian Capital Market:** Since the inception of GDR's a remarkable change in Indian capital market has been observed as follows:

- (i) Indian stock market to some extent is shifting from Bombay to Luxemburg.
- (ii) There is arbitrage possibility in GDR issues.
- (iii) Indian stock market is no longer independent from the rest of the world. This puts additional strain on the investors as they now need to keep updated with worldwide economic events.
- (iv) Indian retail investors are completely sidelined. GDR's/Foreign Institutional Investors' placements + free pricing implies that retail investors can no longer expect to make easy money on heavily discounted rights/public issues.

As a result of introduction of GDR's a considerable foreign investment has flown into India. This has also helped in the creation of specific markets like

- (i) GDR's are sold primarily to institutional investors.
- (ii) Demand is likely to be dominated by emerging market funds.
- (iii) Switching by foreign institutional investors from ordinary shares into GDR's is likely.
- (iv) Major demand is also in UK, USA (Qualified Institutional Buyers), South East Asia (Hong Kong, Singapore), and to some extent continental Europe (principally France and Switzerland).

The following parameters have been observed in regard to GDR investors.

- (i) Dedicated convertible investors.

- (ii) Equity investors who wish to add holdings on reduced risk or who require income enhancement.
- (iii) Fixed income investors who wish to enhance returns.
- (iv) Retail investors: Retail investment money normally managed by continental European banks which on an aggregate basis provide a significant base for Euro-convertible issues.

**Question 5**

*What is the impact of GDRs on Indian Capital Market?*

**Answer**

Impact of Global Depository Receipts (GDRs) on Indian Capital Market

After the globalization of the Indian economy, accessibility to vast amount of resources was available to the domestic corporate sector. One such accessibility was in terms of raising financial resources abroad by internationally prudent companies. Among others, GDRs were the most important source of finance from abroad at competitive cost. Global depository receipts are basically negotiable certificates denominated in US dollars, that represent a non-US company's publicly traded local currency (Indian rupee) equity shares. Companies in India, through the issue of depository receipts, have been able to tap global equity market to raise foreign currency funds by way of equity.

Since the inception of GDRs, a remarkable change in Indian capital market has been observed. Some of the changes are as follows:

- (i) Indian capital market to some extent is shifting from Bombay to Luxemburg and other foreign financial centres.
- (ii) There is arbitrage possibility in GDR issues. Since many Indian companies are actively trading on the London and the New York Exchanges and due to the existence of time differences, market news, sentiments etc. at times the prices of the depository receipts are traded at discounts or premiums to the underlying stock. This presents an arbitrage opportunity wherein the receipts can be bought abroad and sold in India at a higher price.
- (iii) Indian capital market is no longer independent from the rest of the world. This puts additional strain on the investors as they now need to keep updated with worldwide economic events.
- (iv) Indian retail investors are completely sidelined. Due to the placements of GDRs with Foreign Institutional Investor's on the basis free pricing, the retail investors can now no longer expect to make easy money on heavily discounted right/public issues.
- (v) A considerable amount of foreign investment has found its way in the Indian market which has improved liquidity in the capital market.
- (vi) Indian capital market has started to reverberate by world economic changes, good or bad.

## 11.5 Strategic Financial Management

---

- (vii) Indian capital market has not only been widened but deepened as well.
- (viii) It has now become necessary for Indian capital market to adopt international practices in its working including financial innovations.

### Question 6

*Write a brief note on External Commercial Borrowings (ECBs).*

### Answer

ECB include bank loans, supplier credit, securitised instruments, credit from export credit agencies and borrowings from multilateral financial institutions. These securitised instruments may be FRNs, FRBs etc. Indian corporate sector is permitted to raise finance through ECBs within the framework of the policies and procedures prescribed by the Central Government. Multilateral financial institutions like IFC, ADB, AFIC, CDC are providing such facilities while the ECB policy provides flexibility in borrowing consistent with maintenance of prudential limits for total external borrowings, its guiding principles are to keep borrowing maturities long, costs low and encourage infrastructure/core and export sector financing which are crucial for overall growth of the economy. The government of India, from time to time changes the guidelines and limits for which the ECB alternative as a source of finance is pursued by the corporate sector. During past decade the government has streamlined the ECB policy and procedure to enable the Indian companies to have their better access to the international financial markets.

The government permits the ECB route for variety of purposes namely expansion of existing capacity as well as for fresh investment. But ECB can be raised through internationally recognized sources. There are caps and ceilings on ECBs so that macro economy goals are better achieved. Units in SEZ are permitted to use ECBs under a special window.

### Question 7

*Explain briefly the salient features of Foreign Currency Convertible Bonds.*

### Answer

FCCBs are important source of raising funds from abroad. Their salient features are –

1. FCCB is a bond denominated in a foreign currency issued by an Indian company which can be converted into shares of the Indian Company denominated in Indian Rupees.
2. Prior permission of the Department of Economic Affairs, Government of India, Ministry of Finance is required for their issue
3. There will be a domestic and a foreign custodian bank involved in the issue
4. FCCB shall be issued subject to all applicable Laws relating to issue of capital by a company.
5. Tax on FCCB shall be as per provisions of Indian Taxation Laws and Tax will be deducted at source.

6. Conversion of bond to FCCB will not give rise to any capital gains tax in India.

**Question 8**

*Write a short note on Debt route for foreign exchange funds.*

**Answer**

**Debt route for foreign exchange funds:** The following are some of the instruments used for borrowing of funds from the international market:

- (i) *Syndicated bank loans:* The borrower should obtain a good credit rating from the rating agencies. Large loans can be obtained in a reasonably short period with few formalities. Duration of the loan is generally 5 to 10 years. Interest rate is based on LIBOR plus spread depending upon the rating. Some covenants are laid down by the lending institutions like maintenance of key financial ratios.
- (ii) *Euro bonds:* These are basically debt instruments denominated in a currency issued outside the country of the currency. For example, Yen bond floated in France. Primary attraction of these bonds is the shelter from tax and regulations which provide scope for arbitraging yields. These are usually bearer bonds and can take the form of (i) traditional fixed rate bonds (ii) floating rate notes (FRN's) (iii) Convertible bonds.
- (iii) *Foreign bonds:* Foreign bonds are foreign currency bonds and sold at the country of that currency and are subject to the restrictions as placed by that country on the foreigners' funds.
- (iv) *Euro Commercial Papers:* These are short term money market securities usually issued at a discount, for maturity in less than one year.
- (v) *External Commercial Borrowings (ECB's):* These include commercial bank loans, buyer's credit and supplier's credit, securitised instruments such as floating rate notes and fixed rate bonds, credit from official export credit agencies and commercial borrowings from multi-lateral financial institutions like IFCI, ADB etc. External Commercial borrowings have been a popular source of financing for most of capital goods imports. They are gaining importance due to liberalization of restrictions. ECB's are subject to overall ceilings with sub-ceilings fixed by the government from time to time.
- (vi) All other loans are approved by the government.

**Question 9**

*Explain the term 'Exposure netting', with an example.*

**Answer**

Exposure Netting refers to offsetting exposures in one currency with Exposures in the same or another currency, where exchange rates are expected to move in such a way that losses or gains on the first exposed position should be offset by gains or losses on the second currency exposure.

## 11.7 Strategic Financial Management

---

The objective of the exercise is to offset the likely loss in one exposure by likely gain in another. This is a manner of hedging foreign exchange exposures though different from forward and option contracts. This method is similar to portfolio approach in handling systematic risk.

For example, let us assume that a company has an export receivables of US\$ 10,000 due 3 months hence, if not covered by forward contract, here is a currency exposure to US\$.

Further, the same company imports US\$ 10,000 worth of goods/commodities and therefore also builds up a reverse exposure. The company may strategically decide to leave both exposures open and not covered by forward, it would be doing an exercise in exposure netting.

Despite the difficulties in managing currency risk, corporates can now take some concrete steps towards implementing risk mitigating measures, which will reduce both actual and future exposures. For years now, banking transactions have been based on the principle of netting, where only the difference of the summed transactions between the parties is actually transferred. This is called settlement netting. Strictly speaking in banking terms this is known as settlement risk. Exposure netting occurs where outstanding positions are netted against one another in the event of counter party default.

### Question 10

*Write a short note on Forfaiting.*

### Answer

**Forfaiting:** During recent years the forfaiting has acquired immense importance as a source of financing. It means 'surrendering' or relinquishing rights to something. This is very commonly used in international practice among the exporters and importers. In the field of exports, it implies surrenders by an exporter of the claim to receive payment for goods or services rendered to an importer in return for cash payment for those goods and services from the forfaiter (generally a bank), who takes over the importer's promissory notes or the exporters' bills of exchange. The forfaiter, thus assumes responsibility for the collection of such documents from the importer. This arrangement is to help exporter, however, there is always a fixed cost of finance by way of discounting of the debt instruments by the forfaiter. Forfaiting assumes the nature of a purchase transaction without recourse to any previous holder in respect of the instrument of debts at the time of maturity in future.

The exporter generally takes bill or promissory notes to the forfaiter which buys the instrument at a discount from the face value. The importer party's bank has already guaranteed payment unconditionally and irrevocably, and the exporter party's bank now takes complete responsibility for collection without recourse to exporter. Thus a forfaiting arrangement eliminates all credit risks. It also protects against the possibility that interest rate may fluctuate before the bills or notes are paid off. Any adverse movement in exchange rate, any political uncertainties or business conditions may change to the disadvantage of the parties concerned. The forfaiting business is very common in Europe and has come as an important source of export financing in leading currencies.

**Question 11**

*Distinguish between Forfeiting and Factoring.*

**Answer**

Forfeiting was developed to finance medium to long term contracts for financing capital goods. It is now being more widely used in the short-term also especially where the contracts involve large values. There are specialized finance houses that deal in this business and many are linked to some of main banks.

This is a form of fixed rate finance which involves the purchase by the forfeiture of trade receivables normally in the form of trade bills of exchange or promissory notes, accepted by the buyer with the endorsement or guarantee of a bank in the buyer's country.

The benefits are that the exporter can obtain full value of his export contract on or near shipment without recourse. The importer on the other hand has extended payment terms at fixed rate finance.

The forfeiture takes over the buyer and country risks. Forfeiting provides a real alternative to the government backed export finance schemes.

Factoring can however, broadly be defined as an agreement in which receivables arising out of sale of goods/services are sold by a "firm" (client) to the "factor" (a financial intermediary) as a result of which the title to the goods/services represented by the said receivables passes on to the factor. Henceforth, the factor becomes responsible for all credit control, sales accounting and debt collection from the buyer(s). In a full service factoring concept (without recourse facility) if any of the debtors fails to pay the dues as a result of his financial instability/insolvency/bankruptcy, the factor has to absorb the losses.

Some of the points of distinction between forfeiting and factoring have been outlined in the following table.

<b>Factoring</b>	<b>Forfeiting</b>
This may be with recourse or without recourse to the supplier.	This is without recourse to the exporter. The risks are borne by the forfeiter.
It usually involves trade receivables of short maturities.	It usually deals in trade receivables of medium and long term maturities.
It does not involve dealing in negotiable instruments.	It involves dealing in negotiable instrument like bill of exchange and promissory note.
The seller (client) bears the cost of factoring.	The overseas buyer bears the cost of forfeiting.
Usually it involves purchase of all book debts or all classes of book debts.	Forfeiting is generally transaction or project based. Its structuring and costing is case to case basis.
Factoring tends to be a 'case of' sell of	There exists a secondary market in forfeiting.

## 11.9 Strategic Financial Management

---

debt obligation to the factor, with no secondary market.	This adds depth and liquidity to forfeiting.
--	--

### Question 12

*Write a short note on the application of Double taxation agreements on Global depository receipts.*

### Answer

- (i) During the period of fiduciary ownership of shares in the hands of the overseas depository bank, the provisions of avoidance of double taxation agreement entered into by the Government of India with the country of residence of the overseas depository bank will be applicable in the matter of taxation of income from dividends from the underline shares and the interest on foreign currency convertible bounds.
- (ii) During the period if any, when the redeemed underline shares are held by the non-residence investors on transfer from fiduciary ownership of the overseas depository bank, before they are sold to resident purchasers, the avoidance of double taxation agreement entered into by the government of India with the country of residence of the non-resident investor will be applicable in the matter of taxation of income from dividends from the underline shares, or interest on foreign currency convertible bonds or any capital gains arising out of the transfer of the underline shares.

### Question 13

*Discuss the major sources available to an Indian Corporate for raising foreign currency finances.*

### Answer

Major Sources Available to an Indian Corporate for Raising Foreign Currency Finances

1. **Foreign Currency Term Loan from Financial Institutions:** Financial Institutions provide foreign currency term loan for meeting the foreign currency expenditures towards import of plant, machinery, and equipment and also towards payment of foreign technical knowhow fees.
2. **Export Credit Schemes:** Export credit agencies have been established by the government of major industrialized countries for financing exports of capital goods and related technical services. These agencies follow certain consensus guidelines for supporting exports under a convention known as the Berne Union. As per these guidelines, the interest rate applicable for export credits to Indian companies for various maturities is regulated. Two kinds of export credit are provided i.e., buyer's and supplier's credit.

**Buyer's Credit-** Under this arrangement, credit is provided directly to the Indian buyer for purchase of capital goods and/or technical service from the overseas exporter.

**Supplier's Credit -** This is a credit provided to the overseas exporters so that they can make available medium-term finance to Indian importers.

3. **External Commercial Borrowings:** Subject to certain terms and conditions, the Government of India permits Indian firms to resort to external commercial borrowings for the import of plant and machinery. Corporates are allowed to raise up to a stipulated amount from the global markets through the automatic route. Companies wanting to raise more than the stipulated amount have to get an approval of the MOF. ECBs include bank loans, supplier's and buyer's credit, fixed and floating rate bonds and borrowing from private sector windows of Multilateral Financial Institution such as International Finance Corporation.
4. **Euro Issues:** The two principal mechanisms used by Indian companies are Depository Receipts mechanism and Euro convertible Issues. The former represents indirectly equity investment while the latter is debt with an option to convert it into equity.
5. **Issues in Foreign Domestic Markets:** Indian firms can also issue bonds and Equities in the domestic capital market of a foreign country. In recent year, Indian companies like Infosys Technologies and ICICI have successfully tapped the US equity market by issuing American Depository Receipts (ADRs). Like GDRs, ADRs represent claim on a specific number of shares. The principal difference between the two is that the GDRs are issued in the euro market whereas ADRs are issued in the U.S. domestic capital market.
6. **Foreign Collaboration:** Joint participation between private firms, or between foreign firms and Indian Government, or between foreign governments and Indian Government has been a major source of foreign currency finance in recent times
7. **NRI Deposits and Investments:** Government, with a view to attract foreign capital have been introducing various schemes for the Non- resident Indians which ensure higher returns; simplified procedures, tax incentives on interest earned and dividends received, etc. A fairly large portion of the foreign currency capital includes the NRI Deposits and Investments.
8. **Bilateral Government Funding Arrangement:** Generally, advanced countries provide aid in the form of loans and advances, grants, subsidies to governments of under-developed and developing countries. The aid is provided usually for financing government and public sector projects. Funds are provided at concessional terms in respect of cost (interest), maturity, and repayment schedule.

**Question 14**

*What are the issues that need to be considered by an Indian investor and incorporated within the Net Present Value (NPV) model for the evaluation of foreign investment proposals?*

**Answer**

The issues that need to be considered by an Indian investor and incorporated within the Net Present Value (NPV) model for the evaluation of foreign investment proposals are the following:

- (1) *Taxes on income associated with foreign projects:* The host country levies taxes (rates

## 11.11 Strategic Financial Management

---

differ from country to country) on the income earned in that country by the Multi National Company (MNC). Major variations that occur regarding taxation of MNC's are as follows:

- (i) Many countries rely heavily on indirect taxes such as excise duty; value added tax and turnover taxes etc.
  - (ii) Definition of taxable income differs from country to country and also some allowances e.g. rates allowed for depreciation.
  - (iii) Some countries allow tax exemption or reduced taxation on income from certain "desirable" investment projects in the form of tax holidays, exemption from import and export duties and extra depreciation on plant and machinery etc.
  - (iv) Tax treaties entered into with different countries e.g. double taxation avoidance agreements.
  - (v) Offer of tax havens in the form of low or zero corporate tax rates.
- (2) *Political risks*: The extreme risks of doing business in overseas countries can be seizure of property/nationalisation of industry without paying full compensation. There are other ways of interferences in the operations of foreign subsidiary e.g. levy of additional taxes on profits or exchange control regulations may block the flow of funds, restrictions on employment of foreign managerial/technical personnel, restrictions on imports of raw materials/supplies, regulations requiring majority ownership vetting within the host country.

NPV model can be used to evaluate the risk of expropriation by considering probabilities of the occurrence of various events and these estimates may be used to calculate expected cash flows. The resultant expected net present value may be subjected to extensive sensitivity analysis.

- (3) *Economic risks*: The two principal economic risks which influence the success of a project are exchange rate changes and inflation.

The impact of exchange rate changes and inflation upon incremental revenue and upon each element of incremental cost needs to be computed.

### Question 15

*What are P-notes? Why it is preferable route for foreigners to invest in India?*

### Answer

International access to the Indian Capital Markets is limited to FIIs registered with SEBI. The other investors, interested in investing in India can open their account with any registered FII and the FII gets itself registered with SEBI as its sub-account. There are some investors who do not want to disclose their identity or who do not want to get themselves registered with SEBI.

The foreign investors prefer P-Notes route for the following reasons:

- (i) Some investors do not want to reveal their identities. P-Notes serve this purpose.

- (ii) They can invest in Indian Shares without any formalities like registration with SEBI, submitting various reports etc.
- (iii) Saving in cost of investing as no office is to be maintained.
- (iv) No currency conversion.

FII are not allowed to issue P-Notes to Indian nationals, person of Indian origin or overseas corporate bodies.

**Question 16**

*Differentiate between ‘Off-shore funds’ and ‘Asset Management Mutual Funds’.*

**Answer**

<b>Off-Shore Funds</b>	<b>Mutual Funds</b>
Raising of Money internationally and investing money domestically (in India).	Raising of Money domestically as well as investing money domestically (in India).
Number of Investors is very few.	Number of Investors is very large.
Per Capita investment is very high as investors are HNIs.	Per Capita investment is very low as investors as meant for retail/ small investors.
Investment Agreement is basis of management of the fund.	Offer Document is the basis of management of the fund.

**Question 17**

*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:*

<i>Year</i>	<i>Cash inflow</i>
1	<i>US \$ 20,00,000</i>
2	<i>US \$ 25,00,000</i>
3	<i>US \$ 30,00,000</i>
4	<i>US \$ 40,00,000</i>
5	<i>US \$ 50,00,000</i>

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

### 11.13 Strategic Financial Management

#### Answer

$$(1 + 0.12) (1 + \text{Risk Premium}) = (1 + 0.14)$$

$$\text{Or, } 1 + \text{Risk Premium} = 1.14/1.12 = 1.0179$$

Therefore, Risk adjusted dollar rate is =  $1.0179 \times 1.08 = 1.099 - 1 = 0.099$

Calculation of NPV

Year	Cash flow (Million) US\$	PV Factor at 9.9%	P.V.
1	2.00	0.910	1.820
2	2.50	0.828	2.070
3	3.00	0.753	2.259
4	4.00	0.686	2.744
5	5.00	0.624	<u>3.120</u>
			12.013
		Less: Investment	<u>11.000</u>
		NPV	<u>1.013</u>

Therefore, Rupee NPV of the project is = ₹ (48 x 1.013) Million

$$= ₹48.624 \text{ Million}$$

#### Question 18

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 through 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%.

#### Answer

Net Issue Size = \$15 million

$$\text{Gross Issue} = \frac{\$15 \text{ million}}{0.98} = \$15.306 \text{ million}$$

Issue Price per GDR in ₹ (300 x 3 x 90%)                      ₹ 810

Issue Price per GDR in \$ (₹ 810/ ₹ 60)                      \$13.50

Dividend Per GDR ( $D_1$ ) = ₹ 2\* x 3 =                      ₹ 6

\* Assumed to be on based on Face Value of ₹ 10 each share.

Net Proceeds Per GDR = ₹ 810 x 0.98 = ₹ 793.80

(a) Number of GDR to be issued

$$\frac{\$15.306 \text{ million}}{\$13.50} = 1.1338 \text{ million}$$

(b) Cost of GDR to Odessa Ltd.

$$k_e = \frac{6.00}{793.80} + 0.20 = 20.76\%$$

**Question 19**

*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:*

<i>Rent for fully furnished unit with necessary hardware in India</i>	₹ 15,00,000
<i>Man power cost (80 software professional will be working for 10 hours each day)</i>	₹ 400 per man hour
<i>Administrative and other costs</i>	₹ 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.*

**Answer**

**Proforma profit and loss account of the Indian software development unit**

	₹	₹
Revenue		48,00,00,000
Less: Costs:		
Rent	15,00,000	
Manpower (₹400 x 80 x 10 x 365)	11,68,00,000	
Administrative and other costs	12,00,000	11,95,00,000

### 11.15 Strategic Financial Management

Earnings before tax		36,05,00,000
Less: Tax		10,81,50,000
Earnings after tax		25,23,50,000
Less: Withholding tax(TDS)		2,52,35,000
Repatriation amount (in rupees)		22,71,15,000
Repatriation amount (in dollars)		\$4.7 million

**Advise:** The cost of development software in India for the US based company is \$5.268 million. As the USA based Company is expected to sell the software in the US at \$12.0 million, it is advised to develop the software in India.

**Alternatively, if it is assumed that since foreign subsidiary has paid taxes it will not pay withholding taxes then solution will be as under:**

	₹	₹
Revenue		48,00,00,000
Less: Costs:		
Rent	15,00,000	
Manpower (₹400 x 80 x 10 x 365)	11,68,00,000	
Administrative and other costs	12,00,000	11,95,00,000
Earnings before tax		36,05,00,000
Less: Tax		10,81,50,000
Earnings after tax		25,23,50,000
Repatriation amount (in rupees)		25,23,50,000
Repatriation amount (in dollars)		\$ 5,257,292

Advise: The cost of development software in India for the US based company is \$4.743 million. As the USA based Company is expected to sell the software in the US at \$12.0 million, it is advised to develop the software in India.

**Alternatively, if it assumed that first the withholding tax @ 10% is being paid and then its credit is taken in the payment of corporate tax then solution will be as follows:**

	₹	₹
Revenue		48,00,00,000
Less: Costs:		
Rent	15,00,000	
Manpower (₹400 x 80 x 10 x 365)	11,68,00,000	

Administrative and other costs	12,00,000	11,95,00,000
Earnings before tax		36,05,00,000
Less: Withholding Tax		3,60,50,000
Earnings after Withholding tax @ 10%		32,44,50,000
Less: Corporation Tax net of Withholding Tax		7,21,00,000
Repatriation amount (in rupees)		25,23,50,000
Repatriation amount (in dollars)		\$ 5,257,292

**Advise:** The cost of development software in India for the US based company is \$4.743 million. As the USA based Company is expected to sell the software in the US at \$12.0 million, it is advised to develop the software in India.

**Question 20**

*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:*

	Year – 0	Year – 1	Year – 2	Year - 3
Cashflows 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

*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.*

*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.*

## 11.17 Strategic Financial Management

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

**Answer**

### Calculation of NPV

Year	0	1	2	3
Inflation factor in India	1.00	1.10	1.21	1.331
Inflation factor in Africa	1.00	1.40	1.96	2.744
Exchange Rate (as per IRP)	6.00	7.6364	9.7190	12.3696
Cash Flows in ₹ '000				
Real	-50000	-1500	-2000	-2500
Nominal (1)	-50000	-1650	-2420	-3327.50
Cash Flows in African Rand '000				
Real	-200000	50000	70000	90000
Nominal	-200000	70000	137200	246960
In Indian ₹ '000 (2)	-333333	9167	14117	19965
Net Cash Flow in ₹ '000 (1)+(2)	-833333	7517	11697	16637
PVF@20%	1	0.833	0.694	0.579
PV	-833333	6262	8118	9633

NPV of 3 years = -59320 (₹ '000)

NPV of Terminal Value =  $\frac{16637}{0.20} \times 0.579 = 48164$  (₹ '000)

Total NPV of the Project = -59320 (₹ '000) + 48164 (₹ '000) = -11156 (₹ '000)

### Question 21

*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;
- (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

**Answer**

Financial Analysis whether to set up the manufacturing units in India or not may be carried using NPV technique as follows:

I. Incremental Cash Outflows

	\$ Million
Cost of Plant and Machinery	500.00
Working Capital	50.00
Release of existing Working Capital	(15.00)
	535.00

II. Incremental Cash Inflow after Tax (CFAT)

(a) Generated by investment in India for 5 years

	\$ Million
Sales Revenue (5 Million x \$80)	400.00
Less: Costs	

### 11.19 Strategic Financial Management

Variable Cost (5 Million x \$20)	100.00
Fixed Cost	30.00
Depreciation (\$500Million/5)	100.00
EBIT	170.00
Taxes@35%	59.50
EAT	110.50
Add: Depreciation	100.00
CFAT (1-5 years)	210.50
Cash flow at the end of the 5 years (Release of Working Capital)	35.00

(b) Cash generation by exports (Opportunity Cost)

	\$ Million
Sales Revenue (1.5 Million x \$80)	120.00
Less: Variable Cost (1.5 Million x \$40)	60.00
Contribution before tax	60.00
Tax@35%	21.00
CFAT (1-5 years)	39.00

(c) Additional CFAT attributable to Foreign Investment

	\$ Million
Through setting up subsidiary in India	210.50
Through Exports in India	39.00
CFAT (1-5 years)	171.50

III. Determination of NPV

Year	CFAT (\$ Million)	PVF@12%	PV(\$ Million)
1-5	171.50	3.6048	618.2232
5	35	0.5674	19.8590
			638.0822
Less: Initial Outflow			535.0000
			103.0822

Since NPV is positive the proposal should be accepted.

**Question 22**

XYZ Ltd., a company based in India, manufactures very high quality modern 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 customer is 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.

You may use following values with respect to discount factor for ₹ 1 @9%.

	Present Value	Future Value
Year 1	0.917	1.188
Year 2	0.842	1.090
Year 3	0.772	1

**Answer**

**Working Notes:**

- (i) Computation of Forward Rates

End of Year	NC	NC/₹
1	$NC1.60 \times \left( \frac{(1+0.09)}{(1+0.08)} \right)$	1.615

## 11.21 Strategic Financial Management

2	$NC1.615 \times \left( \frac{(1+0.09)}{(1+0.08)} \right)$	1.630
3	$NC1.630 \times \left( \frac{(1+0.09)}{(1+0.08)} \right)$	1.645

(ii) NC Cash Flows converted in Indian Rupees

Year	NC (Million)	Conversion Rate	₹ (Million)
0	-25.00	1.600	-15.625
1	2.60	1.615	1.61
2	3.80	1.630	2.33
3	4.10	1.645	2.49

### Net Present Value

Year	Cash Flow in India	Cash Flow in Nepal	Total	PVF @ 9%	PV
0	---	-15.625	-15.625	1.000	-15.625
1	2.869	1.61	4.479	0.917	4.107
2	4.200	2.33	6.53	0.842	5.498
3	4.600	2.49	7.09	0.772	5.473
					-0.547

### Modified Internal Rate of Return

	Year			
	0	1	2	3
Cash Flow (₹ Million)	-15.625	4.479	6.53	7.09
Year 1 Cash Inflow reinvested for 2 years (1.188 x 4.479)				5.32
Year 2 Cash Inflow reinvested for 1 years (1.090 x 6.53)				7.12
				19.53

$$MIRR = \sqrt[n]{\frac{\text{Terminal Cash Flow}}{\text{Initial Outlay}}} - 1 = \sqrt[3]{\frac{19.53}{15.625}} - 1 = 0.0772 \text{ say } 7.72\%$$