A

PROJECT REPORT ON

INFRASTRUCTURE DEVELOPMENT IN INDIA USING EXTERNAL COMMERCIAL BORROWING (ECB)

SUPERVISED BY

SUBMITTED BY

NAME :

ENROLLMENT NO :

DATE OF SUBMISSION

INFRASTRUCTURE DEVELOPMENT IN INDIA USING EXTERNAL COMMERCIAL BORROWING (ECB)

Submitted By:

Enrollment No. :

Name :

Area of Specialization : MBA (International Business)

Title of the Project : "Infrastructure Development in India Using External Commercial Borrowing (ECB)"

CERTIFICATE

This is to certify that **……**, a student of IMT – CDL Ghaziabad has completed project work on titled **"INFRASTRUCTURE DEVELOPMENT IN INDIA USING EXTERNAL COMMERCIAL BORROWING (ECB)"** under my guidance and supervision.

I certify that this is an original work and has not been copied from any source.

Signature of Guide :_____

Name of Project Guide :_____

Date :_____

ACKNOWLEDGEMENT

With Candor and Pleasure I take opportunity to express my sincere thanks and obligation to my esteemed guide **……..** It is because of his able and mature guidance and co-operation without which it would not have been possible for me to complete my project.

It is my pleasant duty to thank all the staff member of the computer center who never hesitated me from time during the project.

Finally, I gratefully acknowledge the support, encouragement & patience of my family, and as always, nothing in my life would be possible without God, Thank You!

NAME

ENROLMENT NO

DECLARATION

I hereby declare that this project work titled **"INFRASTRUCTURE DEVELOPMENT IN INDIA USING EXTERNAL COMMERCIAL BORROWING (ECB)"** is my original work and no part of it has been submitted for any other degree purpose or published in any other from till date.

NAME

ENROLMENT NO

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1. TITLE OF THE PROJECT

INFRASTRUCTURE DEVELOPMENT IN INDIA USING EXTERNAL COMMERCIAL BORROWING (ECB)

CHAPTER - 1

INTRODUCTION TO THE STUDY

This study will help in establishing impact of various issues on the External Commercial borrowing in the current liberalized scenario, which is a new phenomenon in Indian external commercial sector. Interrelation of various macro economic factors with commercial sector investment perspective will be done. It will also try to identify various regulatory issues, which money market and banking setup are trying to cope up with while lending to power projects. Study will also contribute significantly towards finding innovative ways to meet requirement of infrastructure developing sector.

Due to rapid industrialization and growth of population, India requires huge amount of power. By 2030, India requires an additional power generation capacity of 550, 000 to 850,000 MW. Moreover in India power generation through hydro power is still not tapped completely. According to report, over 150,000 MW of Hydel Power is yet to be tapped in India. The supply of power is less than the demand. The situation is that there are all India average energy shortfalls of 7% and peak demand shortfall of 12%. Alarmed by the increasing gap in supply and demand government has taken various initiatives in policy, regulation and taxation etc., which are likely to boost investment in all segments of power sector.

Infrastructure Development had been in the public domain since its inception way back in 19th century. Most of the infrastructure was created and operated by central government, state government, agencies and undertakings in government domain at various levels. It was mounting technical & commercial losses and widening gap of supply & demand, which forced government to start reform process in power sector. Indian Power sector has been opened up for private sector effectively only in late nineties and afterwards. Necessary regulatory framework and policy has been brought out in 2003. Government has already initiated unbundling of vertically integrated state electricity boards in most of

the states in country. Government has also set to privatize the distribution circles whereas the regulatory authorities have come out with tariff reforms to boost investment.

Not much contribution has been made in Infrastructure sector financing by private sector.

Various factors which affect investment in power sector

- Government policy
- Regulatory mechanism
- Multilateral guarantees
- Government efficiency
- Legal protection to investors
- Financial incentives including tax benefits
- Clear rules of exit for investors
- Investment grade debt rating
- Transition to competitive market
- Corruption Index rating
- Competitive selection of developer
- Probability of vertical integration
- Consumer payment discipline
- Independent and efficient judicial setup
- Implementation of information technology
- Law and order situation
- Availability of qualified technical manpower

Power sector presents immense investment opportunities. India is among the top five power generation countries. The power generation capacity of India is presently 122 GW; 590 billion units. Over the last four years Compound Annual Growth Rate (CAGR) is 4.6%. However, despite that per capita power consumption is still very low in India. It is just 606 units, which is less than half of China. India has third largest transfer and distribution network in the world which is around 5.7 million circuit km. Power in India generated through various technologies. Power generated through coal is 57%, followed

by 25% from hydro power, 10% gas based, 3% from nuclear energy and 5% from renewable sources.

To meet the growing need of power, government has come out with Electricity Act- 2003 and National Electric Plan-2005. In spite of all out effort made by central government which led to dismantling of many vertically integrated state electricity boards and formation of corporate entities out of it, power sector has not become attractive for investment. To meet the demand and supply gap, capacity addition has to be adopted on regular basis. Besides that expanding, modernizing and enhancing load capability of transmission and distribution network has to be taken up at large scale.

It requires huge investment to meet all above mentioned objectives. But to get funds required, has come up as a bottleneck. Various regulations, restrictions, procedures and sector specific conditions are negatively affecting the flow of funds in power sector. There is growing need to carry out a study, which may help in identifying all these issues and concerns of investors. There is a need to take a comprehensive view of investment in power sector, which addresses investors concerns and at the same time typical needs of power projects. For example, RBI has allowed External Commercial Borrowings up to $500 million through automatic route, but needs end spending not in Rupees. But most of the power equipment is available in domestic market at very competitive rates. So spending is possible in Rupees. Alarmed at growing inflation rate, RBI is not allowing Rupee spending. Here problem have to be looked in totality, rather than from individual perspective. Similar case happens with LIC, Pension funds and Banks, where funds are available but exposure limits have blocked the funds flow. This study proposes to carry out investigation in all these issues and concerns, so as to evolve strategic measures required to formulate a comprehensive policy towards financing Indian Power Sector.

INVESTMENT OPPORTUNITY AREAS:

Both domestic and the foreign investors can invest in the following areas for power generation:

- Investment can be done in the Coal based plants at pithead or coastal locations (imported coal)
- Power generation through natural Gas/CNG based turbines at load centers or near gas terminals
- Hydel power presents huge investment opportunity. As per government report nearly 150,000 MW is still untapped.
- Renovation, modernization, upgrading of old thermal and hydro power plants is another area where private and foreign players can invest
- Power transmission too presents huge opportunity for investment. Nearly 60,000 circuit km of transmission network expected by 2012
- Thirteen states in India have corporatised their State Electricity Boards. This provides opportunities to the investors to invest in the power distribution sector through bidding for the privatization of distribution in thirteen states that have unbundled/corporatised
- Efficiency improvement in generation
- Reduction of T&D losses: Energy Audit / metering

Energy Conservation and Demand Side Management

EXTERNAL COMMERCIAL BORROWINGS (ECB)

External Commercial Borrowings (ECBs) include bank loans, suppliers' and buyers' credits, fixed and floating rate bonds (without convertibility) and borrowings from private sector windows of multilateral Financial Institutions such as International Finance Corporation. Euro-issues include Euro-convertible bonds and GDRs.

In India, External Commercial Borrowings are being permitted by the Government for providing an additional source of funds to Indian corporate and PSUs for financing expansion of existing capacity and as well as for fresh investment, to augment the resources available domestically. ECBs can be used for any purpose (rupee-related expenditure as well as imports) except for investment in stock market and speculation in real estate.

External Commercial Borrowings (ECB) are defined to include

Commercial bank loans,
Buyer's credit,
Supplier's credit,
Securitized instruments such as floating rate notes, fixed rate bonds etc.,
Credit from official export credit agencies,
Commercial borrowings from the private sector window of multilateral financial institutions such as IFC, ADB, AFIC, CDC etc. and Investment by Foreign Institutional Investors (FIIs) in dedicated debt funds

Applicants are free to raise ECB from any internationally recognized source like banks, export credit agencies, suppliers of equipment, foreign collaborations, foreign equity - holders, international capital markets etc.

REGULATOR

The department of Economic Affairs, Ministry of Finance, and Government of India with support of Reserve Bank of India, monitors and regulates Indian firms access to global capital markets. From time to time, they announce guidelines on policies and procedures for ECB and Euro-issues.

The important aspect of ECB policy is to provide flexibility in borrowings by Indian corporate, at the same time maintaining prudent limits for total external borrowings. The guiding principles for ECB Policy are to keep maturities long, costs low, and encourage infrastructure and export sector financing which are crucial for overall growth of the economy.

The ECB policy focuses on three aspects:

Eligibility criteria for accessing external markets.

The total volume of borrowings to be raised and their maturity structure.

End use of the funds raised.

Applicants will be free to raise ECB from any internationally recognized source such as banks, export credit agencies; suppliers of equipment, foreign collaborators, foreign equity-holders, international capital markets etc. offers from unrecognized sources will not be entertained.

USE OF ECB:

ECBs are being permitted by the Government as a source of finance for Indian Corporate for expansion of existing capacity as well as for fresh investment. The policy also seeks to give greater priority for projects in the infrastructure and core sectors such as Power, oil Exploration, Telecom, Railways, Roads & Bridges, Ports, Industrial Parks and Urban Infrastructure etc. and the export sector. Development Financial Institutions, through

their sub-lending against the ECB approvals are also expected to give priority to the needs of medium and small scale units ECBs are to be utilized for foreign exchange costs of capital goods and services (on FOB and CIF basis). Proceeds should be utilized at the earliest and corporate should comply with RBI's guidelines on parking ECBs outside till actual imports.

EXTERNAL COMMERCIAL BORROWINGS (ECB):

At present, Indian companies are allowed to access funds from abroad in the following methods:

(a) External Commercial Borrowings (ECB) refer to commercial loans in the form of bank loans, buyers' credit, suppliers' credit, securitized instruments (e.g. floating rate notes and fixed rate bonds, non-convertible, optionally convertible or partially convertible preference shares) availed of from non-resident lenders with a minimum average maturity of 3 years.

(b) Foreign Currency Convertible Bonds (FCCBs) mean a bond issued by an Indian company expressed in foreign currency, and the principal and interest in respect of which is payable in foreign currency. Further, the bonds are required to be issued in accordance with the scheme viz., "Issue of Foreign Currency Convertible Bonds and Ordinary Shares (Through Depositary Receipt Mechanism) Scheme, 1993", and subscribed by a non-resident in foreign currency and convertible into ordinary shares of the issuing company in any manner, either in whole, or in part, on the basis of any equity related warrants attached to debt instruments. The ECB policy is applicable to FCCBs. The issue of FCCBs is also required to adhere to the provisions of Notification FEMA No. 120/RB-2004 dated July 7, 2004, as amended from time to time.

(c) Preference shares (i.e. non-convertible, optionally convertible or partially convertible) for issue of which, funds have been received on or after May 1, 2007 would be considered as debt and should conform to policy. Accordingly, all the norms applicable

for ECBs, viz. eligible borrowers, recognized lenders, amount and maturity, end use stipulations, etc. shall apply. Since these instruments would be denominated in Rupees, the rupee interest rate will be based on the swap equivalent of LIBOR plus the spread as permissible for ECBs of corresponding maturity.

(d) Foreign Currency Exchangeable Bond (FCEB) means a bond expressed in foreign currency, the principal and interest in respect of which is payable in foreign currency, issued by an Issuing Company and subscribed to by a person who is a resident outside India, in foreign currency and exchangeable into equity share of another company, to be called the Offered Company, in any manner, either wholly, or partly or on the basis of any equity related warrants attached to debt instruments. The FCEB must comply with the "Issue of Foreign Currency Exchangeable Bonds (FCEB) Scheme, 2008", notified by the Government of India, Ministry of Finance, Department of Economic Affairs vide Notification G.S.R.89(E) dated February 15, 2008. The guidelines, rules, etc governing ECBs are also applicable to FCEBs.

(e) ECB can be accessed under two routes, viz., (i) Automatic Route outlined in paragraph I (A) and (ii) Approval Route outlined in paragraph I (B).

(f) ECB for investment in real sector-industrial sector, infrastructure sector-in India, and specified service sectors as indicated under para I (A) (i) (a) are under Automatic Route, i.e. do not require Reserve Bank / Government of India approval. In case of doubt as regards eligibility to access the Automatic Route, applicants may take recourse to the Approval Route.

SERVICE SECTOR:

Further, corporate in specified service sectors — hotel, hospital and software — can raise up to $200 million or equivalent under the automatic route as against the present limit of $100 million or equivalent.

According to analysts, inflows under the ECB route could prop up the rupee, which tested the psychological 50/dollar mark last week. The rupee closed at 49.45 a dollar on Monday.

“When the horse is not running, you have to show it the carrot. This is what the RBI has done by liberalizing the ECB window. By allowing more players to access the ECB route, the central bank appears to be banking on the pull factor to attract foreign exchange inflows.

“Amidst all the global turmoil, India is not a bad story so inflows will happen,” said Mr Moses Harding, Executive Vice-President & Head-Treasury, IndusInd Bank.

Considering the specific needs of the infrastructure sector, Indian companies in this space have been permitted to utilize 25 per cent of the fresh ECB raised towards refinancing the rupee loans taken by them from the domestic banking system under the approval route.

This is, however, subject to the condition that at least 75 per cent of the fresh ECB proposed to be raised should be utilized for capital expenditure towards a ‘new infrastructure' project(s).

Further, infrastructure companies can import capital goods by utilizing short-term credit (including buyers' credit / suppliers' credit) in the nature of ‘bridge finance', under the approval route.

Corporates in the infrastructure sector can avail themselves of ECBs for ‘interest during construction' (IDC) as a permissible end-use, under the automatic/approval route, subject to the IDC being a part of project cost and is capitalized. The RBI notification states that ‘all eligible borrowers' have been permitted to avail of ECBs designated in rupees from foreign equity holders, under the automatic/approval route.

Foreign equity holders

To benefit eligible borrowers, ECB proposals from foreign equity holders (direct/indirect) and group companies under the approval route will be considered by the RBI. Service sector units, in addition to those in hotels, hospitals and software, could also be considered as eligible borrowers if the loan is obtained from foreign equity holders.

This would facilitate borrowing by training institutions, R&D, and miscellaneous service companies. ECB from indirect equity holders may be considered provided the indirect equity holding by the lender in the Indian company is at least 51 per cent.

ECB from a group company may also be permitted provided both the borrower and the foreign lender are subsidiaries of the same parent.

While submitting their proposals, eligible companies have to ensure that total outstanding stock of ECBs (including the proposed ECBs) from a foreign equity lender does not exceed seven times the equity holding, either directly or indirectly of the lender.

MANAGEMENT AND INVESTMENT ISSUES IN POWER SECTOR:

Chronic management and investment impediments in power sector have resulted in relentless load shedding, widespread losses in distribution and transmission due to line losses and theft, sky-rocketing electricity tariff for consumers, provision of heavy subsidies to the sector, alarming surge in circular debt and lack of capital for investment in new projects. The government has, in the past two years, undertaken various efforts to resolve the dilemma in power sector by introducing rental power projects (RPPs), settling circular debt to a certain extent and withdrawing subsidies to the sector without any fruitful results. Subsequently, the economy and the people have continued to suffer and there are hardly any viable solutions in sight to address the crippling issue. The power crisis persists due to a wide deficit gap ranging between 800MW and 5,000MW per year subjected to a number of factors such as electricity demand, water level in dams, supply of furnace oil and natural gas and circular debt level. The country has a power generation capacity of 21,409MW at the national level that includes

Pakistan Electric Power Company's (Pepco) installed capacity of 19,300MW. Dearth in energy supply is primarily attributed to inefficient functioning and lack of maintenance of power generating units, along with flawed distribution and financial strategies to manage the power industry in a sound manner. These core issues can be dealt with provided the management of energy sector becomes more professional, competitive and public-service oriented. Presently the focus is on trivial rather than primary matters that has caused public agitation.

Out of Pepco's total installed capacity of 19,300MW, almost 70 per cent is oil/gas-based thermal power generation and the rest is produced from hydro, nuclear and coal sources. The contribution from the latter two sources is practically insignificant and hydropower generation is severely impaired owing to water scarcity in dams. Overwhelming reliance on oil/gas for power generation is the real stumbling point for the government because of surging cost of imported furnace oil and shortage of gas to keep the thermal power units running. The circular debt runs into billions of rupees and is one of the major reasons for

energy deficiency in the country, as financial constraints lead to restricted furnace oil supply. Consequently, electricity generation is dwindled despite the country having the capacity to produce sufficient power for meeting the peak demand that hovers around 15,500MW.

Unresolved power sector problems have grave implications for the national economy and for future investment in power projects. The scope of garnering investments for the futile power sector has diminished during the past few years in view of providing heavy subsidies to it from 2003 till 2007 and making no changes to the electricity tariff, without taking into account the future repercussions. It created a 30.0 per cent gap between average generation cost and recovery that has not been bridged yet, in spite of a hike in power tariff by 92 per cent in last two years. A critical gap of Rs100 billion still persists today and the IMF expects from the political leadership to bridge this deficit by withdrawing subsidies to the power sector. The government tried its best to delay the implementation of this IMF conditionality due to strong public pressure, but eventually it had to concede to its demand in a review mission held in the beginning of March to increase power tariff by 2.0 per cent per month from April till June, 11. This move is bound to add to inflationary pressures in the economy coupled with the recent spike in prices of petroleum prices by 4.9 per cent.

The cumulative impact of all these factors has been that the growth rate of the country's primary energy supply turned negative in 2008-09 and 2009-10, thereby reducing energy consumption by 5.3 per cent in 2009. This percentage figure could be higher for the year 2010. According to Economic Survey 2009-10, "Primary energy supply and per capita availability of energy witnessed a decline of 0.64 per cent and 3.09 per cent respectively during July-March 2009-10 over the same period in 2008-09. It was higher than its fall in the full year of 2008-09 when primary energy supply and per capita availability narrowed down by 0.58 per cent and 2.27 per cent respectively. The fall in energy supply during current period can be attributed to inter corporate circular debt problem."

An additional power generating capacity of 5,000MW needs to be installed during the next 3-4 years. It would need public and private sector cooperation and substantial

investment to improve the existing power units and install new power units that preferably should be non-thermal. In long-term perspective, the government has a number of options including construction of dams and utilising Thar coal deposits, wind and renewable sources of energy with the cooperation of private-public sectors and multilateral institutions. Analysts are of the opinion that Pakistan needs an investment of $200 billion over the next 10-12 years to put into effect the above stated options. In order to fulfil the energy requirement for next 3-4 years, an annual investment of $3-4 billion is required for the power sector. Arranging huge investments is an arduous challenge in view of the existing state of economic affairs, however an initiative has to be taken by the government to boost power generation, for which the following suggestions are made:-

(1) Improvement in security, law and order and political environment should be given top priority to attract private investment in power sector.

(2) Long awaited power sector reforms should be implemented vigorously for efficient management of the sector.

(3) Circular debt has to be resolved and an efficient administrative system be put in action for not allowing the circular debt issue to recur.

(4) The private sector should be encouraged to participate in solving the predicaments faced by the energy sector through transparent award of contracts based on merit, with the co-operation of multilateral institutions. The latter should also be involved as stakeholders in power sector investment.

(5) Existing capacity should be utilized to the optimum level and prime focus needs to be on generating cheaper electricity through hydro and coal-based projects rather than expensive thermal projects.

CURRENT SCENARIO OF POWER SECTOR FINANCING:

Moving from today's still heavy dependence on public financing to tomorrow's system of more private sponsorship is likely to be a long and painful process. In many respects, the traditional style of infrastructure financing has been too easy. Money has flowed through channels where scrutiny has often been limited. The move to a more open and transparent system implies greater scrutiny and the need for more resources to coordinate many diverse interests. In return, it offers the promise of greater accountability and reliability.

In spite best effort of government, private equity participation in power sector has remained very limited. Funding at large is coming from public domain only. Because of strategic importance of power sector in industrial growth, central government has taken the initiative and established Power finance Corporation (PFC) as nodal agency for financing in Power sector. Various sources for funds are tapped by PFC for financing different power projects. Banks, Insurance companies, Industrial financing institutions, domestic as well as foreign institutional investors , Bonds market, Multilateral agencies like Asian Development Bank and World Bank , External Commercial Borrowings and even short term loans from various sources are currently tapped by PFC. But most of these institutions have regulatory limits for financing for a particular sector and especially a particular project. In Power sector, it is not uncommon that a single project cost in the tune of 10,000 to 15,000 crores. But we find most of the institutions have much lower regulatory limit to finance this much amount. So there is a need to make special provisions for financing power sector, such as giving it status of priority sector. There is also necessity to have some innovative financial instruments, which matches both, the typical requirements of power sector, as well as financial institutions. Following are the important instruments and institutions currently engaged in power sector financing.

Domestic Funds

i. Bonds

1. Central Government Bond Market
2. Government Guaranteed Bonds by Companies

3. Tax Free Bonds by Companies
4. Taxable Bonds issued by Companies
5. Secured Bonds issued by our Companies

ii. DEBT SECURITIES

1. Term Loans
2. Debentures
3. Commercial Paper

iii. EQUITY CAPITAL

Various domestic players in financing are as follows

Dedicated financial institutions (PFC)
Commercial Banks
- Public Sector Banks (Nationalized banks)
- Private Sector Banks
- Foreign Banks

Insurance companies
1. Life insurance
2. General insurance

Financial Institutions
1. IDBI
2. IFCI
3. UTI

Merchant Banks / Venture capital funds
Mutual Funds
Central Bank
- Reserve Bank of India

Domestic Stock market

INTERNATIONAL FUNDS:

Foreign Stock Markets

Bilateral assistance

- Department for International Development (DFID)
- United States Agency for International Development (USAID)
- Canadian International Development Agency (CIDA)

Multilateral agencies

- International Bank for Reconstruction and Development (IBRD)
- The International Development Association (IDA)
- Asian Development Bank
- Overseas Program for Economic Co-operation (OPEC)
- World Bank

External Commercial Borrowings

- International Bank
- Export credit agencies
- Suppliers of equipment
- Foreign collaborators
- Foreign equity holders

Merchant Banks / Venture capital funds

Joint Ventures with Large Corporations

A press release by ministry of power stated that power sector has tied up Rs 2, 24,000 crore worth of investments to build power plants with 70,000 Mw aggregate capacity in the next three years at a time the global economy is reeling under liquidity crunch. Country had added 12,000 MW capacities at an investment of Rs 48,000 crore in

the 11th Five-Year Plan (2007-12) so far and tied up funds to complete the projects under execution. “Theoretically, the impact of the downturn will reflect on all sectors.

Since the power generation business is booming in the country, we manage to get funds for fresh projects. About 70,000 Mw is under execution now, which will help us achieve the targeted 90,000 Mw capacity addition under the five-year Plan,” Power minister Shinde said. However, Ernst & Young (E&Y), in its January report, said the investment in the power sector, including generation, transmission and distribution, would be half the earlier estimate of $200 billion (approximately Rs 9, 83,026 crore). “The government is expected to curtail its investment in the power sector due to the global financial crisis. The investment during the 11th Plan period is now expected to be $100 billion (about Rs 4, 91,304 crore),” the report said. The Indian power sector has witnessed a strong all round revival in the last five years with growth rate averaging at about 6 percent per year. The country has emerged as the second largest potential destination for investments in power after China.

SIZE OF INDIAN POWER SECTOR

- Generation capacity of 122 GW; 590 billion units produced (1 unit = 1kwh)
    - CAGR of 4.6% over the last four years

- India has the fifth largest electricity generation capacity in the world
    - Low per capita consumption at 606 units; less than half of China

- T & D network of 5.7 million circuit km – the 3rd largest in the world

- Coal-fired plants constitute 57% of the installed generation capacity, followed by 25% from hydel power, 10% gas based, 3% from nuclear energy and 5% from renewable sources

STRUCTURE

- Majority of Generation, Transmission and Distribution capacities are with either public sector companies or with State Electricity Boards (SEBs)

- Private sector participation is increasing especially in Generation and Distribution
    - Distribution licenses for several cities are already with the private sector
    - Many large generation projects have been planned in the private sector

POLICY

- 100% FDI permitted in Generation, Transmission & Distribution - the Government is keen to draw private investment into the sector

- Policy framework in place: Electricity Act 2003 and National Electricity Policy 2005

- Incentives: Income tax holiday for a block of 10 years in the first 15 years of operation; waiver of capital goods import duties on mega power projects (above 1,000 MW generation capacity)

Independent Regulators: Central Electricity Regulatory Commission for Central PSUs and inter-State issues. Each State has its own Electricity Regulatory Commission

CHAPTER -2

COMPANY PROFILE

PFC was set up on 16th July 1986 as a Financial Institution (FI) dedicated to Power Sector financing and committed to the integrated development of the power and associated sectors. The Corporation was notified as a Public Financial Institution in 1990 under Companies Act, 1956.

The Corporation is registered as a Non Banking Financial Company with the Reserve Bank of India (RBI). RBI, vide its revised Certificate of Registration no. B-14.00004 dated July 28, 2010 classified the company as an 'Infrastructure Finance Company (NBFC-ND-IFC)'.

PFC, which has entered its Silver Jubilee Year in 2010, is a Schedule-A, Nav-Ratna CPSE (conferred by Govt. of India on 22nd June, 2007) in the Financial Service Sector, under the administrative control of the Ministry of Power. Its Registered and Corporate Offices are at New Delhi.

PFC was incorporated with an objective to provide financial resources and encourage flow of investments to the power and associated sectors, to work as a catalyst to bring about institutional improvements in streamlining the functions of its borrowers in financial, technical and managerial areas to ensure optimum utilization of available resources and to mobilize various resources from domestic and international sources at competitive rates.

Products & Services

PFC's product portfolio comprise of Financial Products and Services like Project Term Loan, Equipment Lease Financing, Discounting of Bills, Short Term Loan, and

Consultancy Services etc. for various Power projects in Generation, Transmission, and Distribution sector as well as for Renovation & Modernization of existing power projects.

PFC's priorities include not only accelerating the pace of existing business of funding generation, transmission and distribution projects but also to exploit the new opportunities available in the area of consortium lending, lending to Capital equipment manufacturers and fuel supply projects and related infrastructure development projects, renewable energy and CDM, and equity funding.

In addition, PFC also provides technical, advisory and consultancy services related activities through its subsidiary company namely PFC Consulting Limited.

Government of India Initiatives

Ultra Mega Power Projects (UMPPs)

PFC has been designated as the nodal agency by Ministry of Power (MoP), Government of India (GoI), for development of Ultra Mega Power Projects (UMPPs), with a capacity of atleast 3,500 MW each under Tariff based competitive bidding route. Ministry of Power is the 'facilitator' for the development of these UMPPs while Central Electricity Authority (CEA) is the 'Technical Partner'. Being large in size, these projects will meet the power needs of the country through transmission of power on regional and national grids.

Restructured Accelerated Power Development and Reform Programme (RAPDRP)

Ministry of Power, Government of India, has launched the Restructured Accelerated Power Development and Reforms Programme (R-APDRP) in July 2008 with focus on establishment of base line data, fixation of accountability, reduction of AT&C losses upto 15% level through strengthening & up-gradation of Sub Transmission and Distribution network and adoption of Information Technology during XI Plan. Project area shall be

towns and cities with population of more than 30,000 (10,000 in case of special category states) as per census 2001. Projects under the scheme shall be taken up in two parts. Part-A shall include the projects for establishment of baseline data and IT applications for energy accounting/auditing & IT based consumer service centres. Part-B shall include regular distribution strengthening projects and will cover system improvement, strengthening and augmentation etc.

PFC has been designated as the nodal agency to operationalise the programme and shall act as a single window service under R-APDRP. As nodal agency PFC shall receive a fee as well as the reimbursement of expenditure in implementation of the progrmme as per the norms to be decided by the RAPDRP Steering Committee.

Independent Transmission Projects (ITPs)

Ministry of Power has also initiated Tariff Based Competitive Bidding Process for development and strengthening of Transmission system through private sector participation.

The objective of this initiative is to develop transmission capacities in India and to bring in the potential investors after developing such projects to a stage having preliminary survey work, identification of route, preparation of survey report, initiation of process of land acquisition, initiation of process of seeking forest clearance, if required and to conduct bidding process etc.

PFC Consulting Limited (PFCCL), a wholly owned subsidiary of PFC, has been nominated as 'Bid Process Coordinator' by Ministry of Power, Govt. of India for the development of independent transmission projects.

Distribution Reforms, Upgrades & Management (DRUM)

The Distribution Reform, Upgrades and Management (DRUM) project is an Indo-US initiative designed jointly by the Ministry of Power (MoP) and United States Agency for International Development (USAID) that complements the MoP's Accelerated Power Development and Reform Programme (APDRP). DRUM addresses the critical development challenge of providing commercially viable and dependable power.

The overall goal of the DRUM project is to demonstrate commercially viable electricity distribution systems that provide reliable power of sufficient quality to consumers and to establish a commercial framework and a replicable methodology adopted by Indian Financial Institutions for providing non-recourse financing for DRUM activities and programmes.

PFC has been appointed as Principal Financial Intermediary responsible for technical assistance and training under DRUM components. The roles and responsibilities of PFC for DRUM project are to i) provide management and implementation support, ii) co-ordinate with all stakeholders, iii) act as a financial intermediary and banker for controlling and directing funds (loans and grants) and iv) design mechanism for leveraging resources of other FIs/ Bankers.

Delivery through Decentralised Management (DDM)

DDM is a scheme sponsored by Ministry of Power with the objective of showcasing participatory models of excellence in distribution predominantly in rural area, which are sensitive to the local aspirations and requirements. PFC has been appointed as carrier agency for successful implementation of DDM Schemes.

CORPORATE MISSION:

PFC shall strive to become the most preferred Financial Institution in power and financial sectors, providing best products and services; to promote efficient investments in Power Sector to enable availability of power of the required quality at minimum cost to consumers; to reach out to the global financial system for financing power development; to act as a catalyst for reforming India's Power Sector; and to build human assets and systems for the Power Sector of tomorrow.

CORPORATE VISION:

To be the leading Institution in financing for sustainable development of the Indian Power Sector and its linkages, with an eye on global operations.

BOARD OF DIRECTORS:

Shri Satnam Singh

Chairman & Managing Director

Shri M.K.Goel

Director (Commercial)

Shri Rajeev Sharma

Director (Projects)

Shri R. Nagarajan

Director (Finance)

Shri Devender Singh

Director(Govt.Nominee)

Shri P. Murali Mohana Rao

Director (Independent Director)

Prof. Ravindra H. Dholakia

(Independent Director)

Shri S.C. Gupta

(Independent Director)

FINANCIAL PRODUCTS:

- Fund Based
- Corporate Loan
- Financing of Fuel Supply Projects and Equipment Manufacturer for Power Sector
- Project Term Loan (Rupee and Foreign Currency)
- Short Term Loan
- Short/Medium Term Loan to Equipment Manufacturers
- Direct Discounting of Bills Scheme - For Buyers
- Direct Discounting of Bills Scheme - For Sellers
- Equipment Lease Financing Scheme
- Buyer's Line of Credit
- Debt Refinancing Scheme
- Asset acquisition Scheme
- Project Rupee Bridge Loan Scheme
- Line of Credit for Import of Coal
- Assistance for Studies/Consultancies/Training
- Lease Financing Scheme for Wind Power Projects
- Energy Saving Projects
- Mini Short Term Loan
- Grid Connected Solar PV Power Generation Projects
- Consortium Lending
- Financing of Projects in the Renewable Energy Sector

Non-fund Based

- Guarantee
- Letter of Comfort

CHAPTER – 3

REVIEW OF LITERATURE

The literature for review to be collected from secondary sources such as magazines, articles, reports, budgets, news paper etc to highlight the problems and findings of the study done by many research and business professionals to understand the significance of the materials management of the companies. The objectives of the proposed topic have to be formulated based on the previous study by the many research professionals. Approximately ten to fifteen reviews has to be collected and presented in my project report.

Long run growth of Indian economy will be highly influenced by availability of infrastructure services including electricity. Availability of reliable, cost effective and quality power supply is also a key component of favorable investment environment. It will require huge investment in the power sector to achieve the vision of national electricity policy which envisages meeting all the power shortage by 2012. The investment required in current five year plan alone is estimated approx 10 lac crores. Power sector had been in government domain since its inception. While central government played pivotal role in generation and transmission, state governments managed vertically integrated power utilities. But growing financial losses in operations, sub-standard services and lack of funds required for capacity addition & modernization has forced government for private participation in power sector. Government has brought Electricity Act – 2003 & Electricity Policy in 2005 to provide necessary regulatory framework, creating competitive & professional environment and facilitating private sector participation in power sector.

There are various issues affecting investment in private sector. Institutions like Commercial Banks, Insurance companies, Pension funds, Infrastructure funds, Mutual

funds, Venture funds and dedicated power sector funds, have enough resources to meet financial needs of power projects, but have many regulatory issues and other hurdles to cope up with. In spite of good foreign exchange reserve, External Commercial Borrowings are also not of much help, on account of changed RBI regulations among growing concern for inflation. Bilateral and Multilateral bodies like World Bank and Asian Development Bank always look for sovereign guarantees and counter guarantees for payments, before extending funds. Need is felt to have strategic measures in place, which may help in mobilsing financial resources required to meet need of power sector. There is also need to look up for some innovative ways for financing power sector by roping in big cash rich clients like Railways, Industrial Houses, and Luxury Hotels, Premium Townships etc. to contribute equity capital in lieu of cost effective, uninterrupted and quality power.

Research will start by identifying emerging trends in financing Indian Power Sector. Effort will be made to analyze comparative performance of various sources of financing with power projects perspective. Investigating various issues & concerns of financial institutions will be dealt in second phase. Issue of taxation and financial modeling for Ultra Mega Power Projects will also be investigated. After this, focus will be to evolve some strategic measures so as to facilitate flow of long term, cost effective financial resources in Power Sector. Finding some innovative ways for the same will also be integral part of work. Study will conclude by formulating a strategic plan for financing power sector enabling it to meet vision of National Electric Policy.

According to Charan Sing in 2006:

India's foreign exchange reserves increased during the 1990s as a result of measures introduced to liberalise capital inflows under the financial sector reforms undertaken since 1991. The Reserve Bank of India, in consultation with the government, currently manages foreign exchange reserves. As the objectives of reserve management are liquidity and safety, attention is paid to the currency composition and duration of investment so that a significant proportion can be converted into cash at short notice. The government of India intended to use a part of its foreign exchange reserves to finance

infrastructure. Infrastructure projects in India yield low or negative returns due to difficulties - political and economic - especially in adjusting the tariff structure, introducing labour reforms and upgrading technology. There is no evidence that any other country has used foreign exchange reserves to finance infrastructure. The amount of foreign exchange reserves in India is modest when compared to some of the other countries in the region and it can be argued that the proposed plan may lead to more economic difficulties than anticipated benefits.

According to Jayati Ghosh and C. P. Chandrasekharin 2009:

The view that the Indian economy would be less adversely affected by the global economic crisis because of limited integration and other inherent strengths has proved to be wrong. The economic boom in India that preceded the current downturn was dependent upon greater global integration in three ways: greater reliance on exports particularly of services; increased dependence on capital inflows, especially of the short-term variety; and the role these played in underpinning a domestic credit-fuelled consumption and investment boom. These in turn made the growth process more vulnerable to internally and externally generated crises, as is now becoming clear.

According to L. Boeing Singh, Satyanarayana N. Kalidindi 2006:

The Government of India has been promoting involvement of private entrepreneurs in development of road projects with a focus on overcoming the limitations of the traditional public procurement system. Participation of private entrepreneurs through Public–Private Partnership (PPP) route brings in additional capital and imparts techno-managerial efficiency in the project development and operation. The success of projects procured through PPP route greatly depends on the transfer of risks associated with the project to the parties best able to manage the risks. The traffic revenue risk has been identified as one of the most critical risks impacting the commercial success of the Indian road projects procured through PPP mode. Private sector's reluctance to assume traffic revenue risk and lack of users' willingness to pay have led to development of innovative

contractual structures, such as Annuity Model. This paper discusses the Annuity Model with the help of a case study. Annuity Model is a traffic risk-neutral PPP model where private investment by the project promoters in designing, constructing, and operating the facility is recouped with the annuities paid by the granting authority over the concession period.

According to Abhijit Sen and C. P. Chandrasekhar in 2000:

The basic strategy proposed in the India Infrastructure Report prepared by the Expert Group on the Commercialisation of Infrastructure Projects appointed by the ministry of finance is for the government to retreat as investor, to provide space for private participation, even while continuing to facilitate and provide numerous financial crutches for the private sector. But even all of these very expensive measures do not guarantee that the private sector would respond positively to invest in areas which are both risky and not-so-profitable. The massive external debt burden of sub-Saharan Africa has gained widespread attention as a serious policy issue during the past few years. This paper reviews recent trends in the debt levels and economic performance of sub-Saharan countries and assesses a number of proposals for reducing their external debt service obligations. There is also a discussion of the modalities of various debt relief proposals that have been advanced.

According to Arvind Virmani in 2003:

The liberalisation of India's external sector during the past decade was extremely successful in meeting the BOP crisis of 1990 and putting the BOP on a sustainable path. These reforms improved the openness of the Indian economy vis-à-vis other emerging economies. Much, however, remains to be done. India's economy is still relatively closed compared to its 'peer competitors'. Further reduction of tariff protection and liberalisation of capital flows will enhance the efficiency of the economy and along with reform of domestic policies will stimulate investment and growth. The main lesson of the nineties is that liberalisation of the current and capital account increases the flexibility and resilience

of the BOP. This applies to trade, invisibles, equity capital, MLT debt flows, and the exchange market. The author's analysis confirms that in India the exchange rate is a powerful instrument of adjustment in the current account deficit. It also confirms that equity outflows are very unlikely to be a major cause of BOP problems (unlike short-term debt). The impact of fiscal profligacy on the external account has become indirect and circuitous with the implementation of external sector reforms. It operates much more through the general expectations about economic (growth) prospects and the risk premium demanded by foreign (and domestic) investors and lenders. Thus its negative effects are likely to be focused on the domestic rather than the external account. In other words, the negative long-term effects of fiscal profligacy are more likely to be felt in future on the growth rate of the economy and the health of the domestic financial sector.

POWER SECTOR AND REGULATORY REFORM

NTPC sells its generation capacity to all SEBs in India (except for a few in the northeast region). In the past, NTPC was perennially exposed to the problem of large accounts receivable from the weaker SEBs. The SEBs have been plagued by poor metering, low collections, high receivables, and high theft/losses, and were unable to recover those losses through tariff increases. As with most of ADB's developing member countries, tariffs in India are politically sensitive and are held at artificially low levels for political and social reasons. Many states provide subsidized electricity to farmers and disadvantaged households, which results in tariffs that are significantly below the cost of supply.

During the early 1990s, the SEB-dominated power industry became a drain on the Indian economy and changes were needed in the context of the Government's economic reform program. The Government initially focused on increasing investment in power generation by opening up participation to private power providers and offering to fast-track projects. However it made little progress with this effort, as only a handful of projects reached financial close, and the reforms did not address the underlying fundamental weaknesses of the SEBs, which lost ever larger sums with each kilowatt-hour bought from new

suppliers. To address state and national difficulties, a reform program was initiated in the mid 1990s based on the recommendations of a high-profile Government commission on power sector reform. The program included (i) organizational state reforms, including commercialization and unbundling of generation, transmission, and distribution; (ii) regional and national organizational reforms to strengthen the role of CPSUs; (iii) large-scale involvement of the private sector in generation and distribution, through transparent and competitive selection processes; (iv) Creation of a central regulator to regulate bulk tariffs and state regulator for small generation and end-user tariffs and thus to depoliticize electricity tariff setting; and (v) a progressive phase out of subsidies to agricultural consumers and increase of tariffs to be more reflective of the cost of supply. While the suggested reforms emanated from the central Government, states were given flexibility to choose their own reform path, which had very mixed results.

8 The lack of competitive standards in the power sector, an emphasis on privatization for its own sake rather than for effecting improvements in quality of supply and consumer satisfaction, the seeking of higher returns on investment without corresponding improvements in supply, and improper sequencing undermined the gains made in nonpolitical and transparent tariff setting and private sector participation in the sector. The well-publicized failures of reform in certain states stalled any progress or political will in the others.

A much stronger central government role was required to accelerate the reform process. In 1998, the Government enacted the Electricity Regulatory Commission Act, which led to the establishment of an independent central regulatory commission (CERC) and state-level equivalents (state electricity regulatory commissions). In 2003, the more comprehensive Electricity Act was promulgated, which consolidated existing legislation in the sector under a single act and includes provisions to improve competition and efficient use of resources. It includes initiatives to (i) liberalize generation, transmission, and distribution; (ii) remove the causes of the SEB crisis; (iii) upgrade the central and state regulatory infrastructure; and (iv) Improve coordination between the central and state governments in planning and developing the power sector. The Government

formulated a national tariff policy and national electricity policy in consultation with CEA, CERC, and the state governments. While progress of sector reform continues to be slow, these recent legislative changes, new financial penalties to enforce grid discipline by the SEBs, and the settlement of past dues (para. 13) seem to have put the sector on the road to recovery and curtailed the financial problems of the SEBs, which had infected the sector as a whole.

CHAPTER - 4

OBJECTIVES OF STUDY

Fixing the objective is like identifying the star. The objective decides where we want to go, what we want to achieve and what is our goal or destination.

1. Comparative performance analysis of various channels and institutions financing power sector and innovative methods adopted by PFC. (Channels taken as Bonds markets, Stock market, ECBs, domestic debt market, governments. Institutions taken as banks, insurance companies, pension funds, mutual funds, bilateral and multilateral bodies)
2. Identifying limitations of PFC and concerns of various sources currently financing power Sector.
3. Formulating strategic measures required to improve availability of low cost and long term finances to power sector channeled by the PFC. (relaxing exposure norms for banks, SLR status to power sector bonds, review of cap on all-in-cost to borrower for ECBs, channelizing insurance and pension funds for long term financing and downward revision on interest rate for loan under APDRP)
4. Finding out new possible innovative ways of funding to be adopted by PFC in near future. (Big and cash rich clients like industrial houses , railways, hospitals etc. can be roped in to contribute equity capital in lieu of subsidized and uninterrupted power supply. Leasing out adjoining land for commercial usage)

CHAPTER - 5

RESEARCH METHODOLOGY

The project being undertaken is exploratory research. Where in all these approaches of exploratory research like:

It is a way to systematically solve the research problem. The research methodology includes the various methods and techniques for conducting a research. Research is the systematic design, collection and analysis and reporting of data and finding a solution to a specific situation or problem. D.Slesinger and M.Stephenson in the encyclopedia of social sciences defines Research as, **" The manipulation of things, concepts or symbols for the purpose of generalizing to extend , correct or verify knowledge, whether that knowledge aids in construction of theory or in the practice of an art."** Research is, thus, an original contribution to the existing stock of knowledge making for its advancement.

- **PRIMARY DATA:** Most of the information will be gathered through primary sources. The methods that will be used to collect primary data are:

a) Questionnaire
b) Interview

Questionnaire – It consists of both open ended and close ended questions.

- **SECONDARY DATA**: Secondary data that will be used are web sites and published materials related to ECB as well as any relevant information infrastructure development in India. And secondary data in the form of internal sources come from books and internet.

Secondary data from various

- Magazines
- Newspapers
- Internet, etc

CRITERIA FOR SELECTION:

A criterion for Information in this work will be sourced from books, newspapers, trade journals, white papers, industry portals, government agencies, trade associations, monitoring industry news and developments, and through access to many paid databases. Few important entities which are involved in Infrastructure development sector financing are as follows:

(i) Planning commission
(ii) Ministry of Finance
(iii) Ministry of power
(iv) Reserve Bank of India
(v) Power finance corporation
(vi) Rural Electricity Corporation
(vii) Central Electricity Authority
(viii) Stock Exchange Board of India

Data relating to operations and performance of all these entities will be collected.

(a) Interviews with finance experts and executives, directly involved with power sector financing will be conducted to the extent possible. Data so collected will be primary data and will help in doing qualitative analysis. It will also help out in carrying SWOT analysis for power sector financing and ECB.

(b) Balance sheet of various companies in power sector will be analyzed for preceding five years. Changes in capital structure of these companies will help in analyzing current investment scenario.

(c) Mega Power Projects have come up recently and are in the process of completion. Investment data from these projects will help in getting most recent trends in power sector investment. This data is available from Power Finance Corporation, which has emerged as nodal agency of central government for investment in power sector.

METHOD USE TO CLASSIFY DATA:

- Data Analysis & Interpretation – Classification & tabulation transforms the raw data collected through questionnaire in to useful information by organizing and compiling the bits of data contained in each questionnaire i.e., observation and responses are converted in to understandable and orderly statistics are used to organize and analyze the data.
  - Simple tabulation of data using tally marks.
  - Calculating the percentage of the responses.
  - Formula used = (name of responses / total responses) * 100

Graphical analysis by means of pie charts bar graphs etc.

NUMBER OF RESPONDENTS

Total samples of 50 respondents were contacted who responded to the questionnaires.

AREA OF STUDY

Infrastructure development in India

LIMITATION OF THE STUDY:

The report may be beneficial to company. But there are some limitations of the study:-

- The size of the research may not be substantial and it is limited to area.
- There may be lack of time on the part of respondents.
- There may be some bias information provide by company professionals.
- As only single area are surveyed or covered. It does not represent the overall view of each field.
- It is very much possible that some of the respondents may have given the incorrect information.

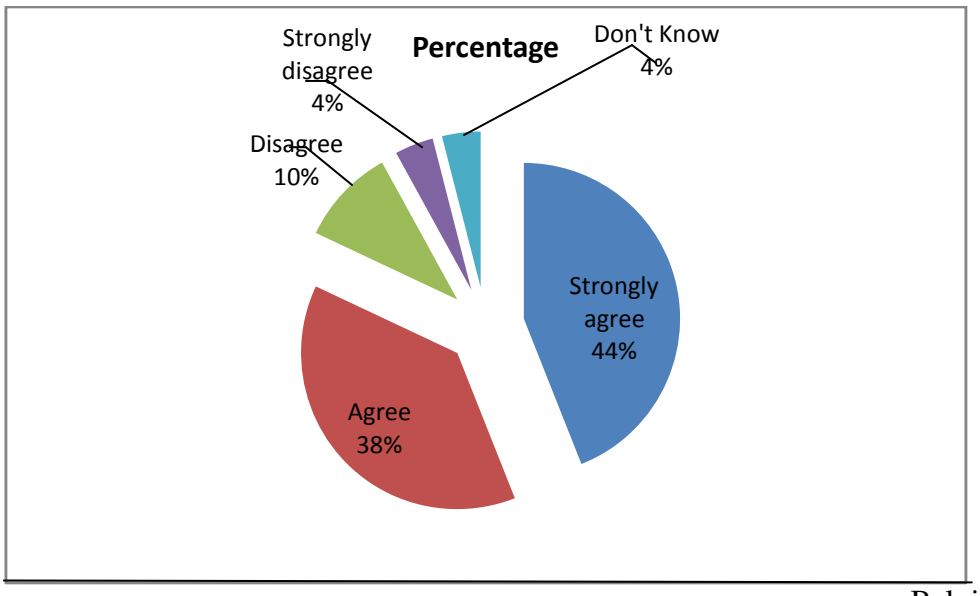
CHAPTER - 6

DATA ANALYSIS AND INTERPRETATION

Q1. What do you thing ECB help in developing the Infrastructure in India at higher rate?

TABLE -1

Criteria	Frequency	Percentage
Strongly agree	22	44%
Agree	19	38%
Disagree	5	10%
Strongly disagree	2	4%
Don't Know	2	4%



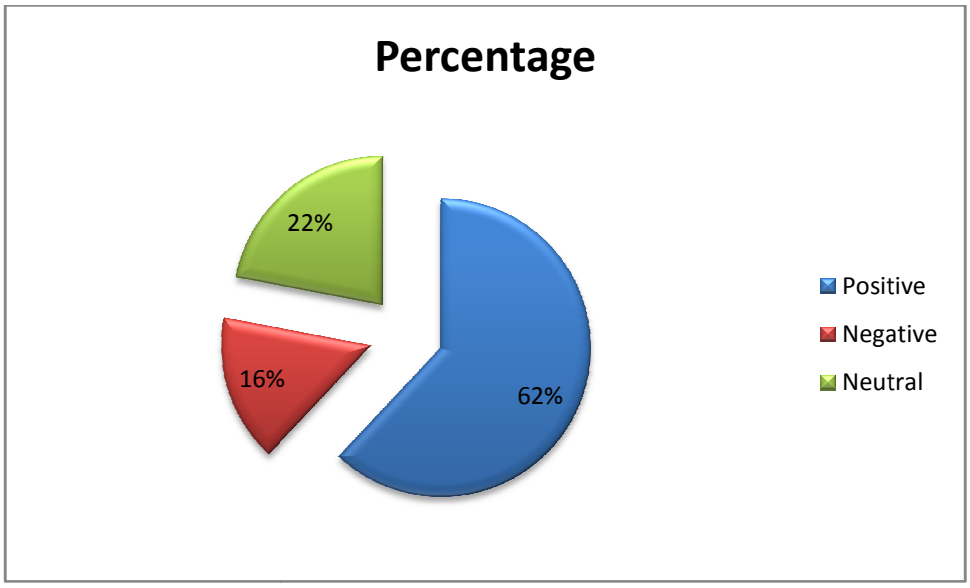
ANALYSIS & INTERPRETATION

As per shown in the above graph, 44% of respondent Strongly agree ECB help in developing the Infrastructure in India at higher rate, 38% of respondent agree, 10% of respondent Disagree, 4% of respondent strongly Disagree and other 4% of respondent Don't know.

Q2. What is the attitude of PFC for the ECB?

TABLE -2

Criteria	Frequency	Percentage
Positive	31	62%
Negative	8	16%
Neutral	11	22%



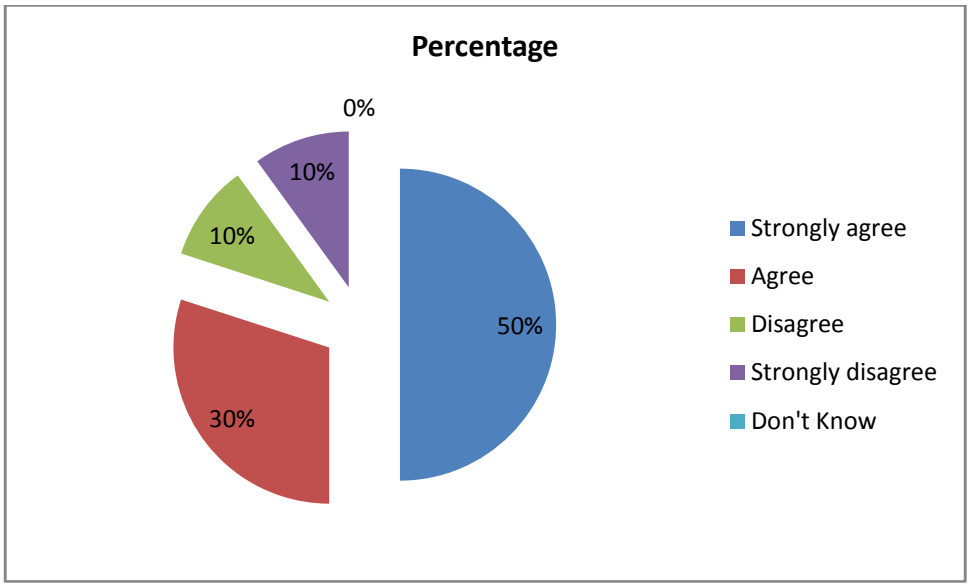
ANALYSIS & INTERPRETATION

As per shown in the above pie graph, 62% of respondent have Positive attitude of PFC for the ECB, 16% of respondent Negative attitude of PFC for the ECB and, 22% of respondent Neutral attitude.

Q3. If you that the PFC is always ready to adopt the new ideas & strategies in the market.

TABLE -3

Criteria	Frequency	Percentage
Strongly agree	25	50%
Agree	15	30%
Disagree	5	10%
Strongly disagree	5	10%
Don't Know	0	0%



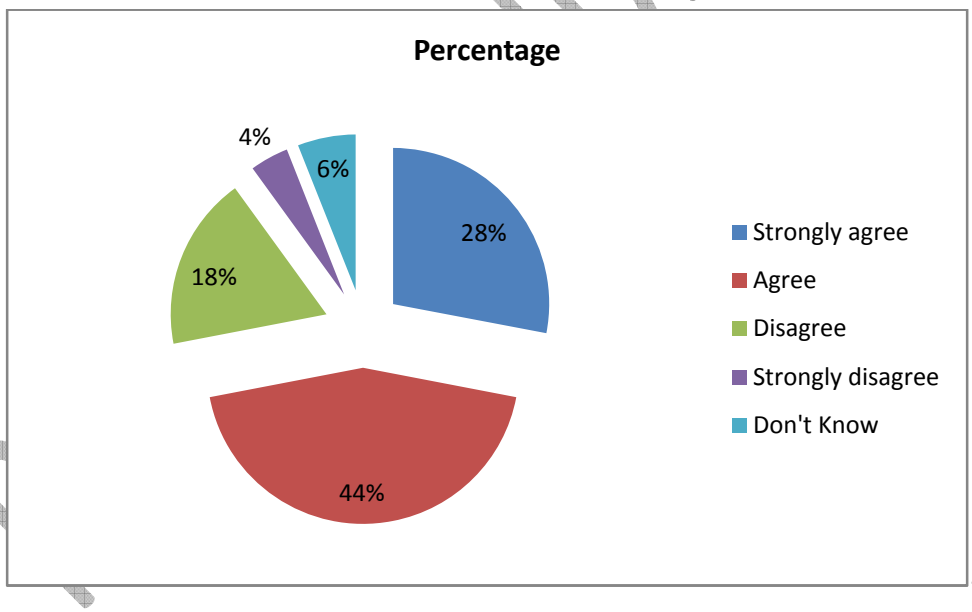
ANALYSIS & INTERPRETATION

As per shown in the above graph, 50% of respondent Strongly agree that the PFC is always ready to adopt the new ideas & strategies in the market, and other 30% of respondent agree. 10% of respondent Disagree and 10% of respondent strongly disagree.

Q4. The rate of interest in the ECB is less than the Local Indian Market.

TABLE -4

Criteria	Frequency	Percentage
Strongly agree	14	28%
Agree	22	44%
Disagree	9	18%
Strongly disagree	2	4%
Don't Know	3	6%



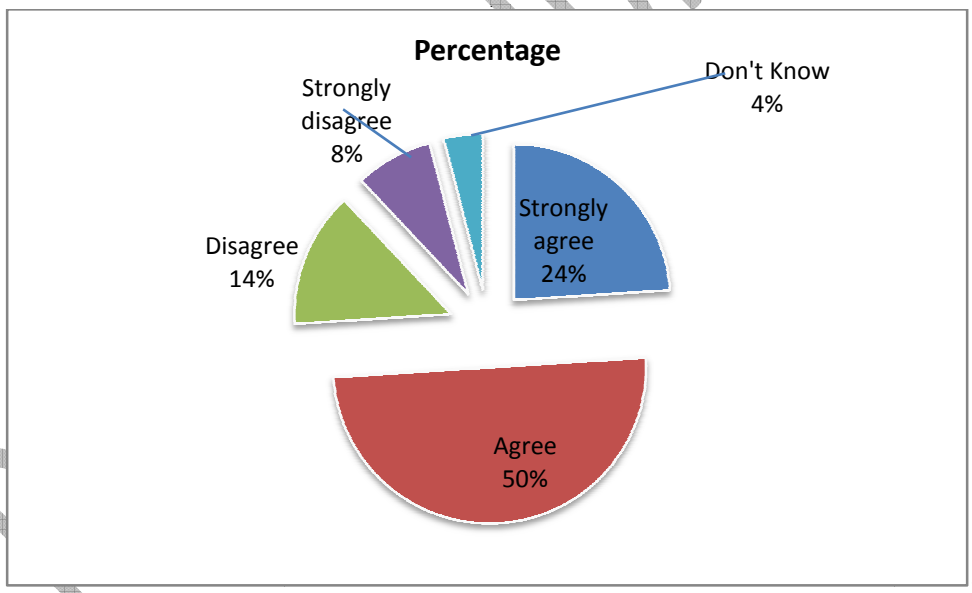
ANALYSIS & INTERPRETATION

As per shown in the above graph, 28% of respondent Strongly agree that the rate of interest in the ECB is less than the Local Indian Market, 44% of respondent agree, 18% of respondent disagree, 4% of respondent strongly disagree and other 6% of respondent Don't Know.

Q5. If PFC is facing Problem of higher rate of interest prevailing in Indian Market?

TABLE -5

Criteria	Frequency	Percentage
Strongly agree	12	24%
Agree	25	50%
Disagree	7	14%
Strongly disagree	4	8%
Don't Know	2	4%



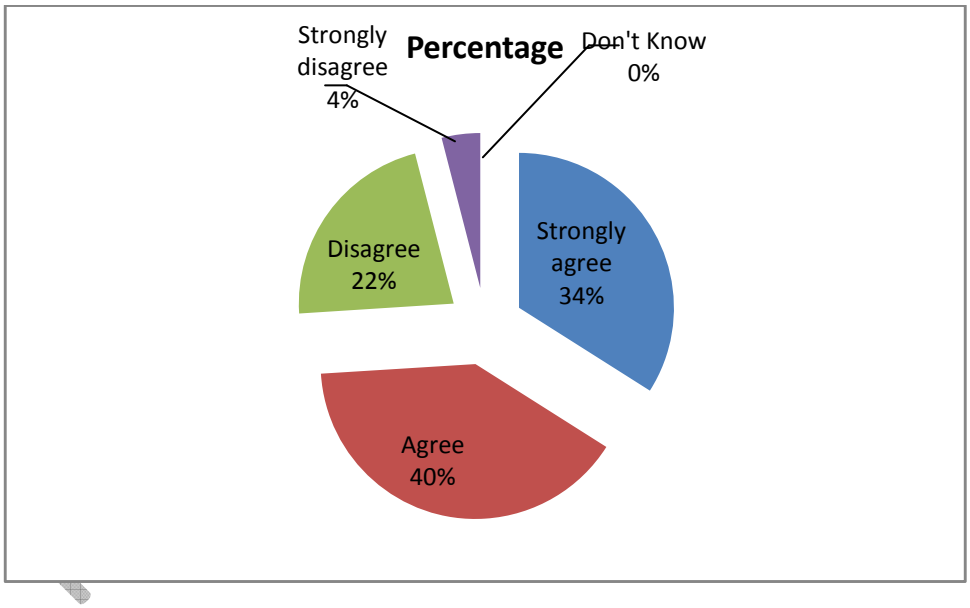
ANALYSIS & INTERPRETATION

As per shown in the above graph, 24% of respondent strongly agree that PFC is facing Problem of higher rate of interest prevailing in Indian Market, 50% of respondent agree that the PFC is facing Problem of higher rate of interest prevailing in Indian Market, 14% of respondent disagree, 8% of respondent strongly disagree and other 4% of respondent Don't Know.

Q6. If the ECB is the Best Option for the PCF.

TABLE -6

Criteria	Frequency	Percentage
Strongly agree	17	34%
Agree	20	40%
Disagree	11	22%
Strongly disagree	2	4%
Don't Know	0	0%



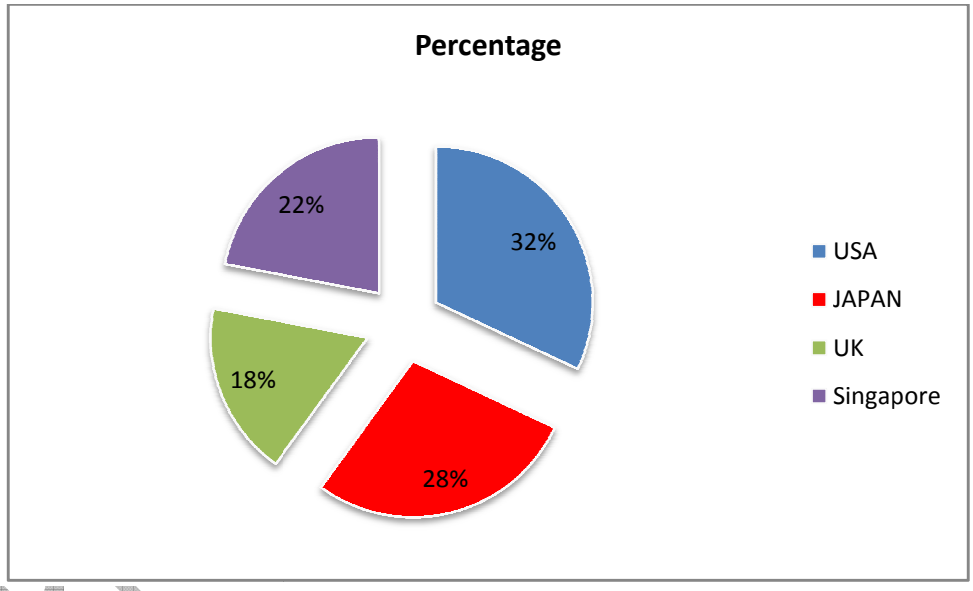
ANALYSIS & INTERPRETATION

As per shown in the above graph, 34% of respondent strongly agree that ECB is the Best Option for the PCF, 40% of respondent agree that ECB is the Best Option for the PCF, 22% of respondent disagree, 4% of respondent strongly disagree.

Q7. Which country you will prefer for ECB?

TABLE - 7

Criteria	Frequency	Percentage
USA	16	32%
JAPAN	14	28%
UK	9	18%
Singapore	11	22%



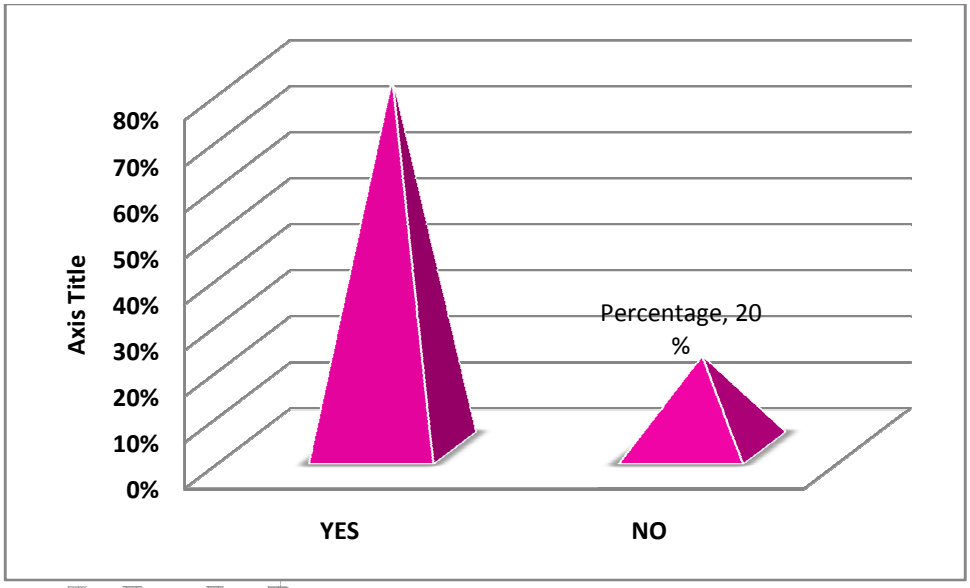
ANALYSIS & INTERPRETATION

As per shown in the above pie graph, 32% of respondent prefer USA for ECB, 28% of respondent prefer Japan, 22% of respondent prefer Singapore for 18% of respondent prefer UK.

Q8. Do you think the Infrastructure development will go on high race by ECB?

TABLE - 8

Criteria	Frequency	Percentage
Agree	40	80%
Don't agree	10	20%



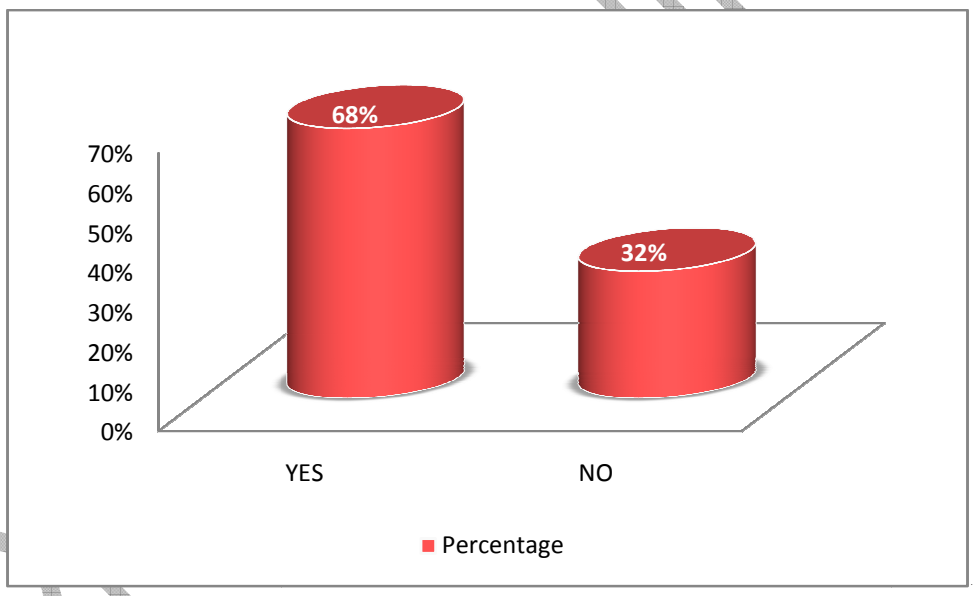
ANALYSIS & INTERPRETATION

As per shown in the above graph, 80% of respondent agree that the Infrastructure development will go on high race by ECB, and other 20% of respondent don't agree with it.

Q9. If Indian Laws Come across the ECB?

TABLE - 9

Criteria	Frequency	Percentage
Agree	34	68%
Don't agree	16	32%



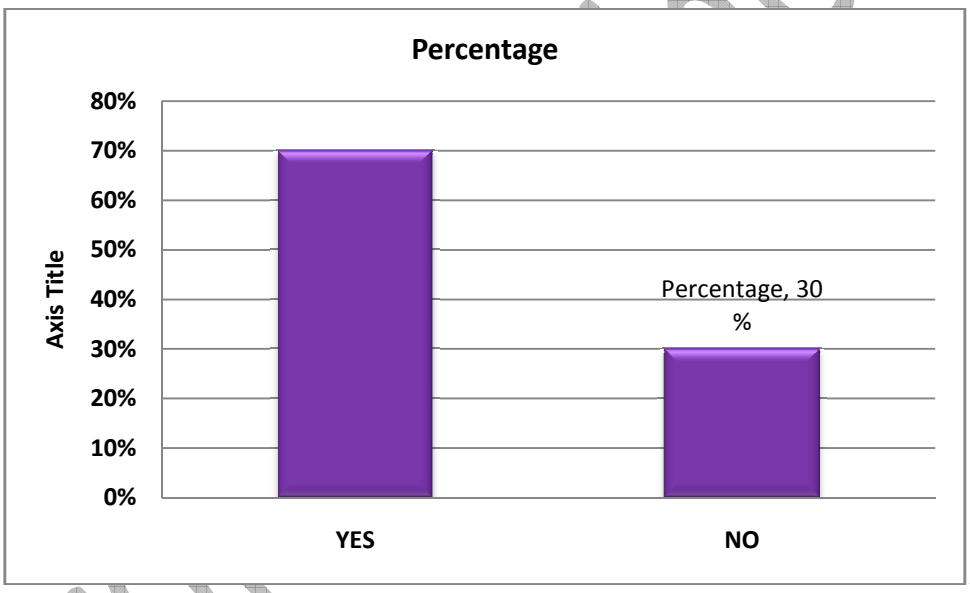
ANALYSIS & INTERPRETATION

As per shown in the above graph, 68% of respondent agree that Indian Laws Come across the ECB and other 32% of respondent don't agree that Indian Laws Come across the ECB.

Q10. If the ECB is the only best option for the Municipal Infrastructure finance in India?

TABLE - 10

Criteria	Frequency	Percentage
Agree	35	70%
Don't agree	15	30%



ANALYSIS & INTERPRETATION

As per shown in the above graph, 70% of respondent agree that the ECB is the only best option for the Municipal Infrastructure finance in India and other 30% of respondent don't agree that the ECB is the only best option for the Municipal Infrastructure finance in India

CHAPTER – 7

MAJOR FINDINGS AND RECOMMENDATION

The findings of the study of **"INFRASTRUCTURE DEVELOPMENT IN INDIA USING EXTERNAL COMMERCIAL BORROWING (ECB)".**

1. As per the outcome of the study 44% of respondent strongly agree ECB help in developing the Infrastructure in India at higher rate, 38% of respondent agree, 10% of respondent Disagree, 4% of respondent strongly disagree and other 4% of respondent Don't know.

2. From the outcome of the study it is evident that, 62% of respondent have Positive attitude of PFC for the ECB, 16% of respondent Negative attitude of PFC for the ECB and, 22% of respondent Neutral attitude.

3. As per the outcome 50% of respondent strongly agree that the PFC is always ready to adopt the new ideas & strategies in the market, and other 30% of respondent agree. 10% of respondent Disagree and 10% of respondent strongly disagree.

4. From the outcome of the study it is evident that 28% of respondent Strongly agree that the rate of interest in the ECB is less than the Local Indian Market, 44% of respondent agree, 18% of respondent disagree, 4% of respondent strongly disagree and other 6% of respondent Don't Know.

5. As per the outcome of the study 24% of respondent strongly agree that PFC is facing Problem of higher rate of interest prevailing in Indian Market, 50% of respondent agree that the PFC is facing Problem of higher rate of interest prevailing in Indian

Market, 14% of respondent disagree, 8% of respondent strongly disagree and other 4% of respondent Don't Know.

6. As per findings that 34% of respondent strongly agree that ECB is the Best Option for the PCF, 40% of respondent agree that ECB is the Best Option for the PCF, 22% of respondent disagree, 4% of respondent strongly disagree.

7. As per the outcome of the study 32% of respondent prefer USA for ECB, 28% of respondent prefer Japan, 22% of respondent prefer Singapore for 18% of respondent prefer UK.

8. Finding that 80% of respondent agree that the Infrastructure development will go on high race by ECB, and other 20% of respondent don't agree with it.

9. As per findings that 68% of respondent agree that Indian Laws Come across the ECB and other 32% of respondent don't agree that Indian Laws come across the ECB.

10. From the outcome of the study it is evident 70% of respondent think that the ECB is the only best option for the Municipal Infrastructure finance in India and other 30% of respondent don't think that the ECB is the only best option for the Municipal Infrastructure finance in India

RECOMMENDATIONS & IMPLEMENTATION STRATEGY:

Policy Measures for Equity Participation

IPO by Power companies: Profit making Central/ State Utilities in generation as well as transmission & distribution to be encouraged for supply of PSUs stock in the market by way of IPOs/ FPOs (Follow-on Public Offer)/ Offer for sale. If there is an Offer for sale coupled with a raising of fresh equity, the money received through offer for sale could be channelized to a Power Investment Fund or to a Power Finance holding company which will use such funds solely for investments in the Power Sector. It is estimated that an amount of Rs. 10,000 -15,000 crore can be raised over the plan period.

Allow lower risk weightage of 100% (equivalent to normal commercial lending) to the primary equity investment/ capital market exposure directly or through an Infrastructure Fund by Banks and AIFIs as against the risk weightage of 150% recently enhanced by RBI. Despite an excellent performance of such investments in the past, Banks and IFIs are reluctant to take exposure in any Indian Infrastructure Development Fund due to increased risk weightage. In view of the need for channelising additional resources for infrastructure development, the increased risk weightage for such investment should not be applicable to equity investments made in Infrastructure dedicated Companies or Funds.

PUBLIC PRIVATE PARTICIPATION MODELS:

PPP ON THE LINES OF UMPP

Where Govt. undertakes to get the various clearances before the bidding facilitates the quicker financial closure.

Relaxation in Companies (Issue of Share Capital with Differential Voting Rights) Rules, 2001, for issuing Equity Shares with Differential Voting Rights

i. The power sector has a huge equity requirement for funding the power projects and the ability of the promoters to put in equity is limited. The possibility of the promoters to invite other financial investors to bridge the equity gap is also restricted as it would dilute their controlling stake due to participation of other equity investors with equal voting rights. However, if by a practicable mechanism the balance equity (with differentiated voting rights) can be infused without diluting controlling stake of the existing promoters, it would facilitate bridging the equity funding gap.

ii. As per Section 86(a) (ii) of the Companies Act, 1956, a company can issue equity shares with differential rights as to dividend, voting or otherwise subject to Companies (Issue of Share Capital with Differential Voting Rights) Rules, 2001. However, under Rule 3 (1) of the above said Rules require a company to have distributable profits in terms of Section 205 of the Companies Act, 1956 for three financial years in which it was decided to issue such shares. This makes it impracticable to use this proviso for bringing equity Funds in a new Power Company/ Project.

iii. In case of power companies (esp. SPVs) the construction period spans over a longer period with huge capital requirement, therefore, the above condition of having distributable profits will restrict the ability to issue such shares by power companies. Therefore, it is proposed that Rule 3 (1) of Companies (Issue of Share Capital with Differential Voting Rights) Rules, 2001 may be waived for power companies for issuing equity shares with differential voting rights before the date of commissioning of the project. A relaxation to this effect will help power companies to bridge the equity funding gap and allow faster off take of the power projects.

EQUITY SUPPORT BY STATE GOVERNMENTS THROUGH BUDGET ALLOCATION:

The State Government should allocate funds through its budget for providing equity support to State utilities in power sector. The recent RBI Study on State finances clearly indicates improvement in finances of major States. This is also reflected in RBI's move to allow better off States to buy back guaranteed bonds from institutional investors. More over States who have availed direct loans from institutions have also come forward to prepay the loans.

SECTOR SPECIFIC FUNDS:

From time to time, GoI introduces sector specific funds with specific objective of making funds available to a particular sector from the respective fund. Some of these funds which can be considered potential source of funds for the infrastructure sector are:

SCHEME FOR FINANCING VIABLE INFRASTRUCTURE PROJECTS

GoI has decided to put into effect the Scheme for financing Viable Infrastructure Projects for providing financial support to improve the viability of infrastructure projects. The scheme is being administered by the Ministry of Finance through the India Infrastructure Finance Company Ltd (IIFCL), a company incorporated under the Companies Act, 1956. Apart from its equity, the IIFCL is being funded through long-term debt raised from open market. This debt can be any or all of the following:

i. Rupee debt raised from the market through suitable instruments created for the purpose; the IIFCL would ordinarily raise debt of maturity of 10 years and beyond.

ii. Debt from bilateral or multilateral institutions such as the World Bank and Asian Development Bank. However, the conditions of multilateral agencies include conditions like ADB generally stipulates that the its loan proceeds be utilized for procurement in member countries of ADB, to comply with various

covenants on resettlement and environment difficult to implement by borrowers etc.

iii. Foreign currency debt, including through external commercial borrowings raised with prior approval of the Government.

The IIFCL would raise funds as and when required, for on lending, in consultation with the Department of Economic Affairs. The magnitude of funds raised would be determined by demand from viable infrastructure projects. To the extent of any mismatch between the raising of funds and their disbursement, surplus funds would be invested in marketable government securities.

The borrowings of IIFCL may be guaranteed by the Government of India. The extent of guarantees to be provided shall be set at the beginning of each fiscal year by the Ministry of Finance, within the limits available under the Fiscal Responsibility & Budget Management Act. However bonds issued by IIFCL, unless otherwise directed by Government of India, will not be included against Statutory Liquidity Ratio requirements. For year 2005-06, as per guidelines laid down for IIFCL, extent of guarantee to be provided by Government of India will be Rs. 10,000 crore.

The total lending by the IIFCL to any Project Company shall not exceed 20% of the Total Project Cost. Loans will be disbursed in proportion to debt disbursements from Banks and AIFIs and it has been estimated that IIFCL exposure as a proportion of Banks and AIFIs would be around 14% to 15%. Further, IIFCL shall finance only commercially viable projects.

SPECIALIZED DEBT FUNDS FOR INFRASTRUCTURE FINANCING

Creation of specialized long-term debt funds to cater to the needs of the infrastructure sector. A regulatory and tax environment that is suitable for attracting investments is key for channelizing long-term funds into infrastructure development.

i. RBI may look into the feasibility of not treating investments by banks in such close-ended debt funds as capital market exposure.

ii. IRDA may consider including investment in SEBI registered debt funds as approved investments for insurance companies.

iii. FII may also be allowed to participate in SEBI registered infrastructure debt funds. This could be done by modifying SEBI foreign VC regulations 2000 to extend its purview to cover debt FIIs such that these are allowed to invest / commit contributions to rupee denominated infrastructure debt funds registered with SEBI along the same lines as applicable for domestic QIBs.

DEVELOPMENT OF PRIMARY MARKETS FOR BONDS AND CORPORATE DEBT

A robust primary market ensures supply of quality papers to the secondary markets leading to growth of secondary market. The issues those need to be addressed for development of primary market in corporate bonds are listed below:

ENHANCING ISSUER BASE

Currently corporates have no compulsions to access the market for raising funds.

i. It would be in the interest of banks that the corporates meet at least part of their requirement through the bond route as they would be in a better position to manage balance sheet related risks (ALM, credit exposure, etc).

ii. Banks' entry into the retail bond market would greatly facilitate in bringing good quality paper to the market through MBS (Mortgage Backed Securities) and ABS (Asset Backed Securities) which provide major impetus for developing corporate debt market.

iii. Allowing all cooperative banks to invest in quality corporate bonds would be helpful as cooperative banks have large deposits,

iv. Retail investors should be encouraged to participate in the market through stock exchanges by providing fiscal incentives for such investments, Encouraging the foreign investor to participate in subordinate/hybrid debt instruments

HYDRO POWER VIABILITY FUND:

In case of Hydro Power Projects, the high cost of generation in the initial 4-5 years is comparatively much higher than in the later years. It is suggested that for long term contracts, a component (say 25%) in the tariff of hydro power projects for the first five years after start of commercial operation is deferred and not recovered from the buyers but is added in the tariff from 11 - 15 years. To operationalise such schemes, lenders will need to initiate a scheme which finances the deferred component of the power tariff of the first five years and recovers its money during 11^{th} to 15^{th} year of the operation. For this, a Fund can be set up by AIFIs which cater to payments and receipts. The responsibility of developing and operating the Hydro Project Viability Fund can be vested with financial intermediaries like PFC etc. This will also rationalize the gap between the tariff of hydro and thermal in the initial years of operations. Any extra financing cost incurred on such viability gap financing should also be permitted as a pass on in the tariff by regulators.

VIABILITY GAP FUND (FOR REMOTE AREAS)

The power projects especially in generation or Transmission and Distribution schemes in remote areas like Northeastern region, J&K etc and other difficult terrains need financial support in the form of a viability gap for the high initial cost of power which is difficult to be absorbed in the initial period of operation. A scheme may be implemented in the remote areas as a viability gap fund either in the form of

subsidy or on the lines of hydro power development fund a loan which finances the deferred component of the power tariff of the first five years and recovers its money during 11th to 15th year of the operation. Any extra financing cost incurred on such viability gap financing should also be permitted as a pass through in the tariff by Regulators.

Institutional / regulatory interventions

Proper security mechanism

a. Commitment of escrow upfront as in case of successful UMPPs to be provided.
b. Alternatively, to provide access to large industrial consumers on payment of wheeling charges,in case of default, as adequate security in lieu of ESCROW. Uniform rules for cross subsidy and additional surcharges to be levied by SEB on sale of power by an IPP in that state to a third party Postal stamp.

Transmission/Wheeling charges by IPPs in various states with access for pooling for power fund. In line with the National Electricity Policy, states should be encouraged to follow Intra - State ABT regime such that they are eligible for 14% return on equity. This would encourage better discipline even within the States and shall enhance internal resources for deployment in R&M/capacity expansion.

Fiscal and other Measures to enable cheaper power:

1. Excise duty/ CVD on power generation, transmission & distribution equipment (which is currently at 16%) should be abolished for projects with 1000 mw dispatch on the lines of concession provided to the mega power project as per para 8.3 of the foreign trade policy (2004-09). This is required, as power sector has no advantage of "cenvat" credit as there is no excise on power, which increases the cost of power.

2. The import duty relaxation presently available for generation quipments may also be extended to include all equipment related to power transmission,

distribution metering and energy conservation so that the supply of equipments at reasonable cost is available to continue with Distribution reforms which are being supported by schemes like APDRP etc.

3. Existing Income tax exemption for Power Sector projects under section 80IA expiring in March 2010 to be extended till March 2017, i.e. end of 12th plan period.

4. Additional depreciation of 20% (WDV) under IT Act is available for Investments in plant and machinery in industries other than power. Same depreciation should be made available to power industry also.

5. Technology transfer for developing and enhancing existing manufacturing facilities in India so that Indigenous vendor development is facilitated for high-tech supplies in future.

Power sector and its financing had been in public sector till recently. Mobilizing funds for public sector was done through public sector institutions where scrutiny and financial prudence was limited. With increasing involvement of private funds, independent regulatory mechanism in place, evolving power market and enhanced competition has brought more scrutiny, financial prudence and accountability for finance managers. Not much research has been done in this field of power sector finance. What so ever investigation has been done is with a view and environment of public sector financing. Most of the literature available is in the form of business reports, conference proceedings, interviews, economic surveys and analytical papers of financial institutions.

Some innovative methods as proposed by the ministry of power to group of ministers in October 2007 to raise funds for the development of power sector such as

(a) Ministry of power has proposed to float Power Bonds 'Vidyut Vikas Patra' to mobilize Rs 50.000 crores for funding various power projects. These Vidyut Vikas Patra will be having lock in period of five years. Initial plan was to raise Rs 10.64 lakh crore to meet requirement of 11 five year plan, but now planning commission has scaled down the target to Rs 7.25 Crores.

(b) Government has also planned to create a power fund by sale of government equity in state owned power firms. Funds raised so may go up to five thousand crores.

(c) Funding of priority sector norms can be expanded to power sector projects also, so as enabling banks to lend more funds.

(d) Tax exemption limit for investment in power sector bonds can be raised from Rs. 100000 to Rs. 150000.

(e) Mesure can be taken to encourage external commercial borrowings for investment in power project.

(f) Efforts have been made to analyze performance of various channels in financing power sector projects. On the basis of various reports and investigations carried out, following scenario emerged out.

EXTERNAL COMMERCIAL BORROWINGS:

External Commercial Borrowings are permitted by the government for providing an additional source of funds for Indian power sector for financing expansion of capacity as well as for fresh investment, to augment the resources available domestically and at the same time to take advantage of the relatively lower interest rate prevailing in the international market. ECB is approved within annual ceiling (currently $500 million), consistent with prudent debt management, keeping in view the balance of payments position and level of foreign exchange reserves.

With a view to manage the country's external debt prudently, the Finance Ministry sets an annual cap on the total ECBs that Indian corporate can access in a year. Recently, the cap has not been even remotely approached. Such a cap would be a constraint only in

years of excess demand. The Government also puts restrictions on the maturity profile of the borrowings with a view to discourage very short-term borrowings.

REFINANCING OF EXISTING LOAN:

In order to ensure that adequate funds are flowing into the power sector, the government and Reserve Bank of India should open refinance window to the banks. This facility will help banks to lend to the infrastructure space at competitive rates which in turn will enable the infrastructure service providers to ensure adequate low cost funding to their projects thereby increasing the viability. The current costs for most infrastructure players are in the region of 12-13% p.a. while the ideal rate should be around 8-9% only. The refinance could be either by way of a plain simple refinance at lower rates so that the banks can lend at a very competitive rate or by way of interest sub-venation where the infrastructure service provider first pays the higher rate and then gets a credit for the differential interest.

ENTURE FUND/ PRIVATE EQUITY FUND:

Development of Power Venture/ PE Fund is a very viable and sound value proposition to help meet energy security needs of the country. Coupled with this, allowing power companies to issue equity shares with differential voting rights along with a relaxation to have distributable profits, such arrangement can be a potent source of funds for the development of Power Infrastructure.

i. It can participate in equity of new projects

ii. An initial corpus can be contributed from corporate sector, domestic and international investors.

iii. Consortium and joint ventures between developers, promoters, end user, contractors, mine developer to be encouraged.

iv. The infusion of equity capital by the Venture Capital/ PE Funds in power companies may be facilitated by allowing power companies to issue equity shares with differential voting rights along with a relaxation of the Rule 3 (1) of Companies (Issue of Share Capital with Differential Voting Rights) Rules, 2001 on having distributable profits. This would create space for Financial Investors to infuse funds in the Projects without threatening the ownership pattern of the Developer.

v. Financial institutions involvement in equity funding of the power projects or contributing towards the corpus of Power Fund should not attract the recently modified Risk weightage of 150% for equity investment and Govt.

There is a space for raising and deploying Energy focused Private Equity Fund (India Power Fund) in line with Infrastructure Development Fund (Rs 930 crore fund) managed by IDFC Private Equity Company Limited and deployed in airports, ports, roads, power plants, gas pipelines etc in its portfolio and IDFC Private Equity (Rs. 2,000 crore in June 2006) being deployed in various infrastructure sectors including Power. IDFC Private Equity has raised IDFC Private Equity Fund II of $440m approx. Rs 2000 crore in June 2006 and the same is being deployed in various infrastructure sectors including Power. Since the need for Power sector is significant, there exists a potential for raising and deploying Energy focus private Equity Fund.

MULTILATERAL AGENCIES:

The external assistance to the Indian Power Sector from agencies like the World Bank and ADB has recorded a growth of 175 per cent in FY'08, despite stiff competition from other sectors both in India and abroad. The sector received external assistance of Rs 8,500 crore from multilateral and bilateral agencies like World Bank, Asian Development Bank, Japan Bank of International Co-operation and KfW (Germany) in the year 2007-08. In 2006-07 the sector had received an external assistance of Rs 3,100 crore. The increase in the amount of assistance projects the visible change in the risk perception of

these global finding agencies with respect to the Indian power sector. During the year, nine power project agreements across generation, transmission and distribution were signed in states like Haryana, Madhya Pradesh and Maharashtra which would be funded by these agencies

CHAPTER - 8

CONCLUSION

External Commercial Borrowings (ECBs) occupy a very important position as a source of funds for Corporate. Thus, it is to be maintained within prudent limits for total external borrowings and to provide flexibility to Corporate in external borrowings and that is reflected in its guidelines. However, the main purpose of ECB is to encourage borrowings which provides basis for strongest economy.

The cost of funds in the Indian Market has been relatively higher than International Market and there is a growing tendency for Indian Business Houses to raise funds from International Markets. Such financing is arranged for reputed corporate houses on prevalent rates of interest. The interest rates are fixed in terms of Basic rate of LIBOR plus other charges.

The Registered Foreign Financial Institutions interested in lending funds to Indian Business Houses can earn handsome interest from Indian Markets. Demand for E.C.B is rising rapidly in this market and the Govt. Rules have also been relaxed to certain extent. Now, Loans upto US$ 5 Millions can be approved by Reserve Bank of India and higher amounts are approved by Ministry of Finance.

QUESTIONNAIRE

DEAR RESPONDENTS:

I am a student doing MBA. I am underlying a project named **"INFRASTRUCTURE DEVELOPMENT IN INDIA USING EXTERNAL COMMERCIAL BORROWING (ECB)".** So by filling this questionnaire please help me in completing my research project.

Name : …….

Age : …….

Address : …….

Gender : …….

Contact No. : …….

Q1. What do you thing ECB help in developing the Infrastructure in India at higher rate?

- ☐ Strongly agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly disagree
- ☐ Don't Know

Q2. What is the attitude of PFC for the ECB?

☐ Positive ☐ Negative ☐ Neutral

Q3. If you that the PFC is always ready to adopt the new ideas & strategies in the market.

☐ Strongly agree

☐ Agree

☐ Disagree

☐ Strongly disagree

☐ Don't Know

Q4. The rate of interest in the ECB is less than the Local Indian Market. Please rate it.

☐ Strongly agree

☐ Agree

☐ Disagree

☐ Strongly disagree

☐ Don't Know

Q5. If PFC is facing Problem of higher rate of interest prevailing in Indian Market?

☐ Strongly agree

☐ Agree

- [ ] Disagree
- [ ] Strongly disagree
- [ ] Don't Know

Q6. If the ECB is the Best Option for the PCF.

- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree
- [ ] Don't Know

Q7. Which country you will prefer for ECB?

- [ ] USA
- [ ] JAPAN
- [ ] UK
- [ ] Singapore

Q8. Do you think the Infrastructure development will go on high race by ECB?

☐ Agree ☐ Don't agree

Q9. If Indian Laws Come across the ECB?

☐ Agree ☐ Don't agree

Q10. If the ECB is the only best option for the Municipal Infrastructure finance in India?

☐ Agree ☐ Don't agree

REFERENCES

1. Venketesan, R. & Varma, S. (1998), Policy Competition Among States in India for Attracting Foreign Direct Investment, National Council of Applied Economic Research, New Delhi.

2. Electricity Trading In Competitive Power Market: An Overview and Key Issues ; Prabodh Bajpai and S. N. Singh; International conference on power systems, ICPS2004, Kathmandu, Nepal (P110)

3. Maitra, S. (1999) 'Financing Urban Development: Flow of Funds from External Sources', a paper presented at the National Workshop on Urban Agenda in the New Millennium, organised by School of Planning, Centre for Environmental Planning and Technology and UNNATI, supported by Oxfam (India) Trust, Ahmedabad, July 23-24 and also published in urban affairs journal 'NAGARLOK'

5. www.careindia.org

6. http://www.business-standard.com/india/news/centre-confidentmeeting-power-sector-targets/349502/

7. Pvt investment in power sector — Planning Commission expresses reservation on BOOT/BLOT concept by G. Srinivasan, Business Daily from THE HINDU group of publications, Tuesday, Apr 07, 2009

8. http://www.emecklai.com/mecklai/forex/regulatory/NTFxECB3Mc.html

9. The report on 1 7 th Elect ric Pow er Survey of I ndia has been published by Cent ral Elect ricity Authority

10. Policy Environment and Regulatory Reforms for Private and Foreign Investment in Developing Countries:A Case of the Indian Power Sector: Anoop Singh: ADB Institute Discussion Paper No. 64

11. UNDP / World Bank (1999), Global Energy Sector Reform in Developing Countries: A Scorecard, Energy and Mining Sector Unit, World Bank, Washington, DC.

12. http://www.ficci.com/media-room/speeches-presentations/2007/sep/sep20-electricity-sushil.htm

13. The World Bank. "The World Bank's Role in the Electric Power Sector: Policies for Effective Institutional, Regulatory and Financial Reform." Policy Paper, 1993, p. 14.