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TAKE OUT FINANCING SCENARIO IN INDIAN INFRASTRUCTURE PROJECTS

Dr. Hiren Maniar (B.E, MBA, PhD (Finance),

Professor in Finance, L&T Institute of Project Management,

Vadodara, Gujarat, India

ABSTRACT

As we know that India is the 4th largest economy (in terms of GDP size) in the world, a key factor obstructing its growth and development is the lack of world class infrastructure. Estimates suggest that this lack of adequate infrastructure reduces India's GDP growth by 1-2 % every year. Fast growth of the Indian economy in past years has placed increasing stress on physical infrastructure (in years to come), such as electricity, railways, roads, ports, airports, irrigation, water supply, and sanitation systems, all of which already suffer from a substantial deficit.The investment needs of the infrastructure projects are increasing as India plans to grow 8-9 % per annum in coming years as per 12th Five year plan drawn by planning commission of India. The Government of India (GOI) set an ambitious target of US$ 1.1 trillion for investment in infrastructure over the next five years as per 12th Five year plan out of which GOI envisages that around 30 % of this investment will come from private sector in form of either Public Private Partnerships or through innovative infrastructure project financing techniques like Take Out Financing. Thus, there is no shying away from infrastructure financing, put off by the gloomy prospects of recovery of loans and collection of interests. Instead, accent should be on improving the lot of lenders, even while being considerate to the unique requirements of infrastructure projects.Takeout finance is the product emerging in the context of the funding of long-term infrastructure projects. Under this arrangement, the institution/the bank financing infrastructure projects will have an arrangement with any financial institution for transferring to the latter the outstanding in respect of such financing in their books on a predetermined basis.The research study aims to study the concept and current scenario along with the future prospectus of Take Out Financing mechanism in Indian Infrastructure Projects.

Keywords: Indian Economy, Infrastructure, Investment, GDP, Take Out Financing, Infrastructure Projects

JEL Classification Codes: H5, N2, N4, N7

Introduction

The sluggishGDP growth (less than 6%[1] in current FY 2014-15) of the Indian economy in recent years has placed increasing stress on reviving physical infrastructure such as electricity, railways, roads, ports, airports and irrigation all of which already suffer from lack of capacities as well as inefficiencies in the delivery of critical infrastructure services. The lack of infrastructure is one of the major constraints on India's ability to maintain a high growth in GDP, which is necessary to make significant difference in standards of living and eliminate poverty over next several years. India has, thus, set an ambitious target of \$ 1.1 trillion for investment in infrastructure as per 12th Five year plan approach paper (published by Planning Commission of India). These planned investments are majorly to develop key infrastructure in the areas of road, bridges, electricity generation & distribution network and increased investment in telecommunication network.

The investment needs of the infrastructure projects are increasing with the economy dwindling below 6% GDP growth and simultaneously it is important for achieving glory growth of 8-9% GDP achieved 5-6 years ago. The Government envisages that more than 40%[2] of this investment will come from private sector in form of either Public Private Partnerships or through project finance. Given the fact that the corporate bond market in India is not well developed and deep, commercial banks have, by and large, been the major source of finance for infrastructure projects. Most banks have reached the prudential exposure limits for infrastructure projects, finding debt to fund infrastructure projects has now become a major problem. It is required that the focus attention is given to the development of bond market, provide alternative sources of finance to the project developers

[1] Source: RBI website
[2] Source: Planning Commission's 12th Five year plan approach paper 2012

and promote financial instruments like, take-out finance, infrastructure debt funds and credit enhancement to increase the tenure of loans and address the asset-liability mismatch problem of the banks.

This research has tried to highlight the new concept of Infrastructure financing –Take Out Financing which is at nascent stage in India. Research paper has also focused on how Take Out Financing will help in reducing the increasing exposure of banks towards risky Infrastructure projects and decrease dependency on Government for funding.

Objectives of Study

It is a known fact that India doesn't have adequate infrastructure to achieve GDP growth of 8-9 % on a sustainable basis. Thus, building infrastructure is of utmost importance to the government. The government's efforts to rope in the private sector in the country's infrastructure building have met with limited success. A long gestation and payback periods are the main reasons behind the private sector's lukewarm response. Keeping this fact in mind, new concept of Take Out Financingthat seeks to bridge the gap between economic and financial rates of return. Availability of quality infrastructure is a pre-requisite to achieve broad based and inclusive growth of the Indian economy on a sustained basis.

This research has tried to highlight the concept of Take Out Financing in Infrastructure project finance by illustrating Take Out Financing framework, process, and its status in Indian Road Projects.

Broadly, objectives or aims of the research paper are as below

- To study the current scenario of Project Financing in Indian Infrastructure projects.
- To study and check the current status of Take Out Financing concept in Indian Infrastructure Projects.
- To address problems and issues faced by Project Finance lenders like Bank/Financial Institution (FI) in terms of financing Infrastructure projects in India.

- To understand the bank/Financial Institution (FI) asset liability duration mismatch (ALM) risk as well as their borrower exposure limits and addresses their possible mitigation roadmap.
- Role of IIFCL in Take Out Financing mechanism for Indian Infrastructure Projects.
- To check viability of Take Out Financing concept in Indian Infrastructure Projects
- To highlight limitations and future prospectus of Take Out Financing concept in Indian Infrastructure Projects.

Organisation of the Study

Research is proposed as per following sequence,

- Literature Review on Infrastructure projects and financing mechanisms
- Importance of Infrastructure for the Indian Economy
- Infrastructure Project Scenario in India
- Issues in Indian Infrastructure Sector
- Infrastructure Investment as per 12th Five Year Plan
- Financing avenues of Infrastructure Projects in India
- initiatives by Government of India to encourage private participation in Infrastructure Projects
- Take Out Financing Concept along with its background, objectives and modalities
- Take Out Financing framework proposed by GOI
- Case Study on Take Out Financing in Indian Infrastructure Projects
- Issues/Problems of Take Out Financing concept in Indian Infrastructure Projects
- Possible Options/Recommendation for Viability of Take Out Financing concept in Indian Infrastructure Projects
- Conclusion

Literature Review

Research work pertaining to Take Out Financing in infrastructure sector is very limited; however, extensive research has been carried out to determine the factors that influence PPP project investment which drives the need of innovative infrastructure project financing techniques like Take Out Financing. Hammami et al[3]describe the common factors across countries that result in a larger number of PPPinvestments. That paper looks at the macroeconomic factors that result in a larger number of projects implemented through the PPP model. The paper concludes that governments with heavy debt burdens, high aggregate demand, well established institutions, and less-corrupt countries have more PPP projects. However, the paper does not make a distinction between failed and successful projects.

The issue of the difficulty in determining the success of PPP projects has been widely addressed. Garvin et al[4]describe the P3 Equilibrium framework as a means of determining the effectiveness of PPP implementation. They divide the success of a project into four maincomponents: state, society, market, and industry. The success of a project is determined by mapping the four factors. A balanced project, wherein all factors are dominant, is considered to be a successful implementation of PPP projects. Bosso et al[5]determine the effectiveness of the PPP model for infrastructure projects in the United States. They apply the P3 framework developed by Garvin et al. to specific case studies and declare a project a success if it is able to balance all four components. This research paper work is closest to the work by Bosso et al that studied infrastructure project investment through PPP model in USA by introducing VGF concept. That paper determines how PPP projects are chosen and how PPP investment impacts performance of Infrastructure Projects.

It is observed that not much relevant research has happened in the area of Take Out financing and especially from Indian Infrastructure context. This research has tried to primarily focus on Take Out financing concept in Indian Infrastructure sector and mainly tried to highlight infrastructure investment requirement to the tune of US$500 as proposedin 12thFive year plan.

Importance of Infrastructure for the Indian Economy

Infrastructure is the prerequisite for the development of any economy.Infrastructure investment is an important driving force to achieve rapid and sustained economic growth.A major area of concern for sustaining the real gross domestic product (GDP) growth in India

[3]Hammami (1999)
[4]Garvin, M.,(2007)
[5]Bosso, Doran J. (2008)

has been lack of adequate infrastructure, which can support the growth process. The deplorably low levels of public investment have rendered India's physical infrastructure incompatible with large increases in the national product and clearly, without improving the rate of infrastructure investment, the overall growth rate at best would remain modest. Distinct from other large emerging market economies which are typically demand constrained, India has been, and will remain in the foreseeable future, a supply constrained economy. The biggest supply constraint is of infrastructure - physical, social and urban. It is widely recognised that poor and inadequate infrastructure is adding to production costs, denting productivity of capital and eroding competitiveness of our productive sectors.

India is the world's third largest economy[6] in terms of GDP valuation and among the fastest growing. It has grown at over 7.6% perannum for the last two years and is poised to grow at 9% per annum in theyears to come, thanks to the policies of economic liberalisation pursued bythe government. This robust growth has placed an increasing stress on thephysical infrastructure such as power, roads, ports, airports and railways,which were already carrying a significant deficit from the past. There isconsensus that the on-going growth in the manufacturing and service sectorswould be constrained if infrastructure services do not keep pace. Thegovernment is, therefore, committed to building world-class infrastructurefor improving the quality of life and enhancing competitiveness of theeconomy.

The financing requirements of infrastructure are so large that noamount of resource mobilisation within the public sector can meet thischallenge. Recourse to private capital is, therefore, inevitable for sustainingthe growth momentum. In addition, private participation is expected to usherefficiency gains and reduction in costs. As such, the government looks uponPublic Private Partnerships (PPPs) for addressing many of these imperatives,and this has led to a paradigm shift in favour of PPPs.

The government has initiated concerted measures for creating anenabling policy and regulatory environment that would attract the requisitelevels of private investment. This includes well-designed PPP frameworkscoupled with financial and fiscal support. We expect that well-structuredPPPs would help marry private sector's management skills, financing

[6] As on October 2011 as per RBI December 2011 Report

flexibility, designing capabilities, innovation and technology, with thegovernment's role in managing land acquisition, environmental clearances,inflation, change in law etc. The new framework would also facilitate greatertransparency and accountability with reduced transaction costs. This shouldmean a win-win situation for all stakeholders, public and private.

Main question arises is why infrastructure push now. There are following reasons to answer the question.

- The revised 12thFive year plan (2012-2017) has projected US$ 1.1 trillion spend for Infrastructure development in India, a growth of around 100% over the comparative 11th five year plan period.
- The World Bank is exploring to invest in an $11 billion debt fund the Indian government will roll out by next year as part of a massive push to its infrastructure sector.
- There is at least $50 billion to $60 billion untapped investor potential in water and sewage treatment projects in India , according to latestWorld bank estimates
- Foreign investors are likely to fund up to 30% of India's $18 billion road projects in the current fiscal year, a figure expected to only grow exponentially in coming years[7]
- Indian Government has set target of 30,000 mw of power from renewable energy including 20,000 mw from solar power by 2022, and invited German companies to collaborate in these areas.

Infrastructure Projects Scenario in India

India, the second most populated country of more than 1350 million has emerged as one of the fastest growing economies. It is a republic with a federal structure and well-developed independent judiciary with political consensus in reforms and stable democratic environment. GDP at current prices stood at US$ 1.7 trillion[8] and present growth rate is 5.7 % (in Q1FY 2014-15) with an inflation rate of 2.4% (in September 2014). India is the 4th largest economy

[7] Source –Reuters 2011 report on Investment in India
[8] As per RBI website

in terms of Purchasing Power Parity (PPP). This rapid growth of the Indian economy has brought into focus the poor state of infrastructure in India. Congestion can be seen everywhere, be it roads, ports or airports andreports show that all sections of the Indian society, from the business community to thecommon man, feel constrained by the lack of adequate infrastructure.It is well recognized that, with its present stateof physical infrastructure, India will be hardpressedto sustain 9% plus annual GDPgrowth over the medium term. Be it in power,roads, ports, airports, water, railways, urbanfacilities or even telecoms, the country'sinfrastructure needs are enormous. There is amassive and urgent need to increase investmentin these sectors.

Indeed, even with a somewhat slowerrate of growth, the Indian economy is stillexpanding significantly, and substantialinvestment in infrastructure continuesto be required in order to sustain India'seconomic progress.The Indian Government recognises thisimperative. As per the 12thFive YearPlan, more than US$ 1.1trillion worth ofinvestment is planned to flow into India'sinfrastructure by 2017.

Infrastructure development in India has largely beenin the Government domain. However, in recent years Government of India (GOI) and StateGovernment(s) have been putting an increasing focus in involving the private sector ininfrastructure creation under the public private partnership (PPP) framework. Twocommonly cited reasons for this are as follows:

- **Funding the infrastructure deficit:** Given the large investment required for infrastructure development in India and the scarce Government resources, it is unlikely that public funds would be adequate to meet the needs in this context. In addition, the Fiscal Responsibility and Budget Management Act and steps towards fiscal prudence adopted by both the Centre and State Governments have also contributed to the thought process of involving the private sector in the process of infrastructure development in the country.
- **Value addition:** Apart from being an alternate source of finance, private sector participation is also viewed as a possible way of value addition in the various aspects of the value chain of infrastructure development including innovation, managerial

efficiency in the project management process, adoption of better technology in key infrastructure areas etc.

With almost 30 months gone into the 12thFive Year Plan, which began from 1stApril 2012, investments have failed to trickle in as desired. The five year plan had envisaged doubling of investment into infrastructure from the previous five year plan to US$1 trillion. Now, this 1 trillion appear optimistic and needs to be scaled down to near possibility. If we go by the current Indian economy trend, the average GDP growth during the 12th plan period (2012-17) would be reworked to 6-6.5 %. That means infrastructure spends would certainly be fall below the projected US$1 trillion.

As we can observe in Table-1 below, compared to Rs. 24,24,277 in 11th five year plan to Rs. 55,74,663 which is 130% increase compared to 11th Five year plan spending on infrastructure sector.Public Private Partnerships (PPP) implies the coming together of two dominant butdivergent sectors of the economy, each with different prescriptions and objectives, forthe overall development of the community. Public Private Partnerships have emerged asone of the latest and successful instruments of public finance, and are increasinglyadopted by both developed and developing countries for building and rebuilding theirinfrastructure framework. The Eleventh Five Year Plan accords high priority to PPPprojects both in the Central and States' Plan initiatives in the endeavour to overcome theyawning infrastructure deficits that face the country.

Development and use of PPPs for delivering infrastructure services has now at least 11 years of precedence in India, with the majority of projects coming in line in the last 5 –7 years. Policies in favor of attracting private participation as well as innovation with different structures have met with varying degrees of success. Some sectors like telecommunications, power, and ports and roads, have done very good progress compared to limited success in other sectors.

Some states have undertaken far more PPPs than others, and there has been a much heavier use of PPPs in some sectors. As far as current status of projects is concerned, as per our database, there have been 1758 PPP projects[9] in our main sectors of focus where a contract has been awarded and projects are underway in the sense that they are either operational, have reached construction stage, or at least construction/implementation is imminent. The total project cost is estimated to be about Rs. 683,332.10 Crore[10] as on 30th September 2014.It is observed that the potential use of PPPs in e-governance and health and education sectors remains largely untapped across India as a whole, though off-late there have been some activities shaping in these sectors. In terms of main types of PPP contracts, almost all contracts have been of the BOT/BOOT type (either toll or annuity payment models) or close variants.

Table-1: Projected Investment in Infrastructure as per 12thPlan[11](Rs. Crore at Current Prices)

Sector Wise Figures							
Sector Wise	**Total 11th Five year Plan**	**2012–13**	**2013–14**	**2014–15**	**2015-16**	**2016-17**	**Total 12th Five year Plan**
Electricity	7,28,494	2,28,405	2,59,273	2,94,274	3,33,470	3,86,244	15,01,666
Renewable Energy	89,220	31,199	42,590	58,125	79,075	1,07,637	3,18,626
Roads and Bridges	4,53,121	1,50,466	1,64,490	1,80,415	1,98,166	2,21,000	9,14,536
Telecommunications	3,84,962	1,05,949	1,36,090	1,76,489	2,30,557	2,94,814	9,43,899
Railways	2,01,237	64,713	78,570	96,884	1,21,699	1,57,355	5,19,221
MRTS	41,669	13,555	17,148	22,298	29,836	41,322	1,24,158
Irrigation	2,43,497	77,113	87,386	99,178	1,12,506	1,28,186	5,04,371
Water Supply and Sanitation	1,20,774	36,569	42,605	49,728	58,084	68,333	2,55,319
Ports	44,536	18,661	25,537	35,260	49,066	69,256	1,97,781
Airports	36,311	7,691	10,716	15,233	21,959	32,116	87,714

[9] Source: PPP Cell
[10] Source: PPP Cell
[11] Data taken from Planning Commission of India website

Oil and Gas pipelines	62,534	12,211	16,604	23,833	36,440	59,845	1,48,933
Storage	17,921	4,480	6,444	9,599	14,716	23,202	58,441
Grand Total	**24,24,277**	**7,51,012**	**8,87,454**	**10,61,316**	**12,85,573**	**15,89,308**	**55,74,663**

Though PPP infrastructure development in India is at a nascent stage, recent trends havebeen very encouraging. Our study has estimated that the total value of PPP infrastructureprojects in India that have achieved financial close in the last ten years is about USD15.8billion (in the study, sectors included are all transport sectors, urban infrastructure, water &sanitation, power transmission and distribution). Hence, achieving the growth rate envisagedover next five years for investment from private players will definitely require a huge step-upapproach to project development and implementation.

Issues in Indian Infrastructure Sector

There are a number of concerns with current infrastructure project financing arrangements:

(*a*) Government wary of 100 % private investments due to existence of natural monopolies in these sectors.

(*b*) The balance sheets of Indian banks are small compared to the size of the Infrastructure projects. Hence their exposure limits (stipulated by RBI) are breached easily with few projects.

(*c*) Corporate Infrastructure bonds require high interest rates due to low credit ratings.

(*d*) Insurance firms & Pension funds, which have long term funds have restrictions by IRDA & Pension regulators to play in Bond market. They are only allowed to invest in bond with credit rating higher than BBB.

With the Indian Government set on a big push for infrastructure investment, a strong corporate bond market is vital. In the last couple of years, banks have become the biggest lenders to infrastructure projects. Smaller banks that didn't really have the skills to assess the risks joined the party through loan syndications, in the process somewhat mitigating the credit risk for the others.

That's why some relief in the form of takeout financing will help them; they can lend to the concerned project for three to four years, or any time period that they're comfortable with, after which they can hand over the loan to IIFCL. It's also good news for the borrower who would typically be able to negotiate the loan at a slightly lower rate of interest from the bank since the tenure would be shorter. Of course, most loans these days are negotiated at a floating interest rate and with fairly short reset periods.

As we all know that Infrastructure projects have a very long gestation period, sometimes more than 20years. These projects involve a heavy investment and the repayment period for the loans taken on theseprojects is very long, generally 8 to 10 years.

So in long term infrastructure finance there are two main factors:

- Huge amount is involved.
- Long gestation period.
- Huge Risk, which is higher in the beginning (construction phase) and comparatively lower in later (operation Phase).

In India, the Banks have cannot go beyond an exposure limit, which refers to limits for arrangements for providing funds or credit including loans and advances, debt and equity securities, loan substitute securities, and financial leases. This exposure limit is fixed by the Reserve Bank of India.

Keeping in view the above factors, Infrastructure Financing in India has the following limitations.

- The Banks have usually smaller balance sheets, as compared to the size of the Infrastructure Projects. The exposure limit prescribed by the RBI can easily breached by two or three large projects.
- The Commercial banks usually provide short term finance, the Financial Institutions such as Insurance Firms and pension Funds provide long term finance, but they are subject to control by the IRDA and other regulators.
- A loan should have liabilities of the matching maturity. For example, the commercial banks may have fixed deposits etc. for a period of around 5-7 years , but the infrastructure projects need a loan for a period which is almost double than this period. This is called "Asset Liability Mismatch".

Following issues with Indian Infrastructure projectscan be summarised:

- **Demand and Supply Gap in Availability of Resources:**With regard to debt, the Reserve Bank of India (RBI), estimates that approximately $206 billion would be available for infrastructure during the 11th Five year Plan, compared with the overall debt requirement of $247 billion[12].This amount comprises (i) $106 billion as domestic bank credit; (ii) $70 billion from nonbank financing institutions, pensions, and insurance funds; and (iii) $30 billion through external commercial borrowings including from multilateral sources. An estimated financing shortfall of $41 billion remains, especially for long-term financing.
- **Impact of Global Economic and Financial Crisis:**In addition to limited availability of financing, the contagion effects of the global financial crisis have affected India. As a consequence of the crisis, external financing available to Indian financial institutions has decreased, forcing them to raise credit domestically. However, this substitution of financing sources squeezed domestic money and credit markets and put pressure on the rupee. To manage volatility of the currency, RBI's interventions in the markets added to liquidity tightening.
- **Lack of participation from insurance companies:** Ironically, life insurance companies, which have access to long-term money and should invest in this space, are quite passive on it as they are averse to taking on project risk. Their investment fell from INR 289 billion in 2006-07 to INR 104 billion in 2011-12. Instead, they prefer the safer route of subscribing to debt paper issued by established companies and are, therefore, big buyers of non-convertible debentures.
- **Reduced overseas funding:** Infrastructure financing from overseas hasn't been easy to come by since the global financial crisis broke out; RBI data shows that ECBs raised by infrastructure companies declined by 41 % from USD 12.35 billion between August 2008 and March 2009 to USD 7.18 billion between August 2010 and March

[12]Of the $514 billion investment requirements, the total debt requirement is estimated at around $247 billion. Theremaining investment is expected to come from internal cash generation and budgetary support for central andstate government projects, and from internal accruals and equity in private sector projects

2011. So, essentially it's been banks that are funding projects; flush with money in 2010-11, they have lent large sums to power projects.

- **Asset-Liability Mismatch of Commercial Banks:** After the budgetary support, next in line for financing infrastructure were funds from the commercial banking sector. However, it is a well-known fact that these are institutions that primarily leverage on short-term liabilities and, as such, their ability to extend long-term loans to the infrastructure sector is limited. This is because, by doing so they get into serious asset-liability mismatches.
- **Overdependence on bank lending:** Lack of funding from other avenues coupled with banks being flush with money in 2010-11 resulted in banks becoming the biggest lenders to infrastructure projects. However, infrastructure projects require debt for 15-20 years and deposits raised by banks are of much shorter duration, leading to an asset liability mismatch. Also, some banks are close to hitting the limit of group and single-entity exposure due to financing such large ticket investments.
- **Fiscal Burden:** We have already seen that almost half of the total investment in the infrastructure sector was done by the Government through budget allocations. Here the point to be noted is that Government funds have competing demands, such as, education, health, employment generation, among others. Given that there is a limit to the Government's financing of infrastructure, especially in the context of a rule based fiscal policy framework, it is important to explore other avenues for financing infrastructure.

Infrastructure Investment as per 12th Five Year Plan

Investment in the infrastructure sector has increased from 4.9 % of the Gross Domestic Product (GDP) in 2002-03 to 6 % in 2013-14. It is expected to touch 10% of GDP in the 12th Five Year Plan (2012- 2017). Government initiatives including opening up a number of infrastructure sectors to private players, promoting investment in the sector by private players by permitting FDI, huge spending on projects like the National Highway Development Project (NHDP), National Maritime Development Programme (NMDP), Dedicated Freight Corridor, and Airport modernization have opened up huge opportunities for investors.

The financial sector in India is dominated by banks[13].Commercial banks are the largestgroup, comprising 58% of total financial assets, followed by life insurance with 17% of total assets.There are a large number of NBFCs with 12% of total assets operating in specialized segments(leasing, factoring, microfinance, infrastructure finance). Pension and provident fund assets accountfor about 5.5% of total assets. Pension provision covers 12 % of the working population andconsists of civil service arrangements, a compulsory scheme for formal private sector employees, andprivate schemes offered through insurance companies. Finally mutual funds account for 8% of assets.

With the increasing investment, the share of private sector in the total investment on infrastructure has increased rapidly. The contribution of the private sector in the total infrastructure investment for each of the first two years of the 11thPlan (2007-2012) was around 34%. This is higher than the 11thPlan target of 30%, and the 25% contribution achieved in the 10th Plan period. This share is expected to rise to 36% by the end of the 11thPlan and expectations are pegged at 50% for the 12thPlan (2012-2017).

The Eleventh Plan emphasized the importance of investment in infrastructure for achieving a sustainableand inclusive growth of 9 to 10 % in GDP over the next decade. In this context, it envisaged an increase in investment in physical infrastructure from the level of about 5 % of GDP during the 10thPlan to about 9 %of GDP by 2011–12 (terminal year of the 11thPlan). This was estimated to require an investment of Rs 20,56,150 crore (US$ 514 billion) during the 11thPlan period as compared to an estimated investment of Rs 8,71,445 crore (US$ 218 billion)[14] during the Tenth Plan. Further, it was estimated that the contribution of the private sector in this investment would increase from about 20 %in the Tenth Plan to about 30 %in the 11thPlan.

India aims to double investments in the infrastructure sectorto a massive US$ 1.1 trillion during the 12thPlan period (2012-17),as against US$ 500 billion in 11thPlan period (2007-11).The government has asked the Planning Commission to draw aplan for action to achieve

[13] Source: International Monetary Fund, 2013
[14]An exchange rate of US$1= Rs 40 has been used to ensure comparison at 2006–07 price levels

such levels of investment to ensure agross domestic product (GDP) growth target of 10 %forthe 12th Plan.

To support the high economic growth, the investment requirements in the infrastructure sector is estimated to be around 41 lakh crore (revised to Rs66 lakh crore in the approach paper for the 12th five year plan) during the 12th five year plan period. This implies that infrastructure investment will need to increase from about 8.0 % of GDP in the base year (2011-12) of the Plan to about 10.0 % of GDP in 2016-17. Over the plan period as a whole, the infrastructure investment is estimated to be about 9.95 %of GDP. Financing of this investment would require larger outlays from the public sector, but this has to be coupled with a more than proportional rise in private investment. Going forward, the share of private investment in infrastructure may, in fact, have to increase to 50.0 % in the 12th five year plan. However, this estimate on infrastructure investment has to be understood with caution as the underlying assumption is 9% growth in GDP throughout the plan period. But at any case, even with GDP growth of 7 or 8%, if we want to invest around 10% of GDP in the infrastructure sector, the financing requirement is going to be huge (refer Table-3 for details).

Special attention must be paid to the financing needs of private sector investment ininfrastructure. Infrastructure investment will need to increase from about 8 % of GDP in the base year (2011-12) of the Plan to about 10 % of GDP in 2016-17. The total investment in infrastructurewould have to be over Rs. 66 lakh crore or US$ 1.1 trillionduring the 12thPlan period and almost 50% of investment is expected to come from private sector (refer Table-2 for details).

Table-2: Projected Investment in Infrastructure during 12th Five Year Plan[15]

Year	Base Year (2011-12)	2012-13	2013-14	2014-15	2015-16	2016-17	Total 12th Plan
GDP at FY07 Prices@ Rs 40/$ (Rs.	63,14,265	68,82,,549	75,01,978	81,77,156	89,13,100	97,15,280	4,11,90,064

[15] Source: Mid-Term Appraisal Eleventh Five Year Plan, Planning Commission, GOI; WPI inflation used to convert to current prices; FY12 inflation based on PMEAC projection

Crores.)							
GDP at FY07 Prices@ Rs 40/$ (US$ trillion)	1.4	1.5	1.7	1.8	2.0	2.2	9.2
Rate of Growth (%)	9.00 %	9.00 %	9.00 %	9.00 %	9.00 %	9.00 %	9.00 %
Infrastructure Investment as % of GDP	8.37 %	9.00 %	9.50 %	9.90 %	10.30 %	10.70 %	9.95 %
Infrastructure Investment (Rs. Crores. in FY07 prices @ Rs 40/$)	5,28,316	6,19,429	7,12,688	8,09,538	9,18,049	10,39,535	40,99,240
Infrastructure Investment (US$ billion) @ Rs 40/$	132	155	178	202	230	260	1,025
Infrastructure Investment (Rs. Crores. in FY 14 prices @ 60/$)	721,781	888,572	1,073,470	1,280,315	1,524,526	1,812,581	6,579,463
Infrastructure Investment (US$ billion) @ Rs60/$	120	147	179	213	254	302	1,097

Based on projections provided in the Mid-Term Appraisal of the 11thFive Year Plan, in order to attain a 9% real GDP growth rate, infrastructure investment should be on average almost 10% of GDP during the Twelfth Plan. This translates into Rs. 41 Lakh Crores in 2006-07 prices (real terms), as estimated by the Planning Commission. Converting this investment requirement into nominal terms (based on expected inflation of 5%) would imply an equivalent to Rs. 65 Lakh Crores in current prices of Rs.60/US$. Assuming 50 % of the investment will be met by budgetary resources Rs. 32.5 Lakh Crores needs to be met through debt and equity.

The projected funding by various sources amounts to Rs. 17.89Lakh Crores., leaving a funding gap of around Rs. 14.60 Lakh Crores. (in nominal prices). However, various policy and regulatory recommendations have been made that will enable a greater flow of funds into the infrastructure sector. Some of the specific measures have been quantified and are estimated at Rs. 8.72 Lakh Crores. Implementing these measures would reduce the funding gap to Rs. 5.89 Lakh Crores.However, it may be mentioned that Budgetary support assumed at Rs.32.5 lakh crore (50% of the requirement), if not available to that extent, would further increase the above mentioned gap in resources.

Table-3: Summary of Funds available through various Channels of Infrastructure Funding[16]

(All figures in Rs. Crore)

Particulars	Funds Estimated#	Additional Funds	Funds estimated (revised)
Commercial Banks	7,43,511	1,45,000	8,88,511
NBFCs	3,84,477	53,300	4,37,777
Insurance	1,50,766	4,52,298	6,03,064
ECBs	54,957	-	54,957
Equity & FDI	4,55,414	2,22,155	6,77,569
Total	**17,89,126**	**8,72,753#**	**26,61,878**

#Budget Support is additional to these sources; estimated to be 50% of Rs. 65 Lakh Crores. i.e. Rs.32.5 Lakh Crores.
@ With the new Infrastructure Debt Funds coming up, incremental Rs 50,000 Crores to Rs 1 Lakh
Crores may be available over the 12th Five Year Plan

Table-4: 12th Five Year Plan –Sectorwise Investments envisagedfrom private sector[17]

(All figures in US$ billion)

Power	Road	Railways	Airports	Ports	Telecom	Total
243	107	29	5	7	49	500

16 Source: Working Sub-Group on Infrastructure - Infrastructure Funding Requirements and its Sources over the implementation period of the Twelfth Five Year Plan (2012- 2017)

17 Source: India Opportunities in Infrastructure: Grant Thornton India, 25th May 2011

Infrastructure deficit of India is arguably the critical development challenge facing the country. The weak state ofinfrastructure represents a drag on higher, sustainable gross domestic product (GDP) growth reflecting supply sideconstraints and stymies economic development, and with it, poverty alleviation efforts. In order to meet the growingaspirations of its citizens including better service delivery, India will have to identify new means to expand infrastructurefinancing given limits on fiscal space, external commercial borrowing, and bank balance sheets. The solution toovercoming these limits lies in part on increasingly leveraging private capital.

It is also estimated that the infrastructure investmentfunding gap during the 12thFive-Year Plan would be about $113 billion. The shortfall is projected to be sourced fromthe private sector. The government has identified the need for further reforms to enhance private sector participation ininfrastructure. These include strengthening PPP support, promoting project finance schemes in infrastructuredevelopment, and developing new sources of take-out, project bond financing including infrastructure debt funds. Withthese reforms in place, the government plans to accelerate the infrastructure investment to above 9% of GDP during theTwelfth Plan compared with 7% during the Eleventh Plan. The government has targeted IIFCL, an apex organizationestablished for promoting PPP projects, to play a larger role in the infrastructure financing space. ADB[18] India Country Partnership Strategy (CPS) for 12th Five year plan emphasizes infrastructure development and is based on four pillars namely (i)inclusive and environmentally sustainable growth, (ii) catalyzing investment, (iii) increasing results orientation andknowledge solutions, and (iv) regional cooperation.

Financing avenues of Infrastructure Projects in India

The rapid growth of Indian economy critically depends on the state of infrastructure in the country. At the current juncture, the development of infrastructure in India, particularly in the key sectors like power, telecommunications, roads and ports, is critical.

[18]Source: ADB - Accelerating Infrastructure Investment Facility in India, April 2014

Infrastructure projects are characterised by large capital costs and longgestation periods. The assets of these projects are not easily transferable andthe services provided are non-tradable in nature. These projects are typicallyvulnerable to regulatory and political changes and are also dependent onsupportive infrastructure. There are also politically sensitive issues like tariffsand relocation and rehabilitation of people. For these reasons, the infrastructureprojects carry a relatively higher risk profile and, therefore, this funding isdifferent from the traditional balance sheet financing. The characteristics andcomplex nature of infrastructure projects call for proper risks assessment andmitigation mechanisms. The financing of infrastructure projects is largely cashflow based and not asset based. In fact, in some sectors like telecom, roads,bridges etc. the tangible assets may not even provide adequate cover for theloans. These projects are financed through Special Purpose Vehicles by way ofnon-recourse/limited recourse financing structures. The approach to suchprojects is to properly identify and allocate various elements of project risks to theentities participating in the project. The role of sponsors is normally limited tobringing in the contracted equity/contingent equity contribution.

There are following sources available for financing infrastructure projects in India[19]

1. Domestic Sources
   - Equity
     - Domestic investors (independently or in collaboration with international investors)
     - Public utilities
     - Dedicated Government Funds
     - Other institutional investors
   - Debt
     - Domestic commercial banks (3–5 year tenor)
     - Domestic term lending institutions (7–10 year tenor)
     - Domestic bond markets (7–10 year tenor)
     - Specialized infrastructure financing institutions such as Infrastructure Debt Funds

[19] Asian Development Bank: Proposed Multi-tranche Financing Facility India: India Infrastructure Project Financing Facility, November, 2007

2. External Sources
   - Equity
     - Foreign investors (independently or in collaboration with domestic investors)
     - Equipment suppliers (in collaboration with domestic or international developers)
     - Dedicated infrastructure funds
     - Other international equity investors
     - Multilateral agencies
   - Debt
     - International commercial banks (7–10 year tenor)
     - Export credit agencies (7–10 year tenor)
     - International bond markets (10–30 year tenor)
     - Multilateral agencies (over 20 year tenor)

Infrastructure financing in India has critical dimensions and contributes to increased investment and productivity, which is vital for an economy like India in order to sustain the uptrend in the cycle of growth. Several initiatives have been taken to accelerate the pace of project implementation. The policy framework, especially for the PPPs, has been modified by streamlining PPP approvals in the central sector through Public Private Partnership Appraisal Committee (PPPAC), introducing viability gap funding facility, providing finance through India Infrastructure Finance Company Ltd. (IIFCL), standardising contracts to regulate terminologies related to risk, liabilities and performance standards, etc.

The US$1.1 trillion that India plans to spend in infrastructure under 12th Five year Plan raisesquestions about how such a massive wave of financing can be accommodated. Most analystsestimate India's medium-term trend rate of growth at or above 8 % a year, and acontinuation of or further increase to India's already high savings rates. This should providea sufficiently large envelope for strong growth in infrastructure, as foreseen under the 12th Five year Plan, as well as in other areas. However, it is not clear how a larger pool of savings can beintermediated into infrastructure finance. Under India's 11th Five year Plan, while targets forinfrastructure finance have broadly been reached, this is partly to do with the profitability oftelecommunications, where investment has been particularly strong. In other areas, such asenergy, roads, and railroads, either funding has lagged behind targets or physical output isunlikely to reach Plan targets.

Initiativesby Government of India to encourage private participation in Infrastructure Projects[20]

The opportunities for private investment in infrastructure projects are immense. As thereach of PPP increases across the sectors, the capacity of the private sector to manage these projectsover their entire life cycle of 20 to 30 years would also have to be enhanced. Government of Indianow allows FDI in most infrastructure sectors to the extent of 100%. The time is ripe for theforeign strategic investors to begin to taking greater interest in project development andmanagement activity in India.

- **Infrastructure Bonds**

  Public and private sector firms will be allowed to offer tax-free bonds to investors, as the government seeks to broaden its avenues to raise long-term funds for infrastructure. These will have tenure of minimum of 10 years, with a lock-in of five years for investors. An investment up to INR 20,000 in these bonds will qualify for income tax deduction, this is in addition to the deduction of INR 1,00,000 allowed under sections 80C, 80CCC and 80CCD of the IT Act. However, the volume of issuance (of tax free bonds) during the financial year (2011-12) was restricted to 25 % of the incremental infrastructure investments made by the issuer during the last financial year. Tax-free bonds will meet the dual objective of encouraging savings and meeting long-term needs of the infrastructure sector. These will help divert a part of the households' savings and also help the case of developing a bond market in the country

- **Infrastructure Debt Funds**

  To date, debt financing for infrastructure projects has largely been confined to commercial banks. But these loans are expensive and banks are fast approaching their

[20] Source: Ministry of Finance and RBI Websites

lending limits. The debt funds would buy loans from the banks for projects that have completed construction and entered into commercial operation. The government has plans to create a INR 50,000-crore (USD 11 billion) dedicated infrastructure fund and raise 40 % of the corpus from overseas investors. The government had set a panel headed by Deepak Parekh with an aim to raise INR 20,000 crore, or USD 4.4 billion, from foreign pension, insurance and sovereign wealth funds, and the remainder from domestic institutions. (Lack of 'pre-investment rights' for the foreign investors is one of the prime reasons for lesser foreign participation). As per the norms being prepared for the fund, only the public-private- partnership projects will be eligible to draw funding from the IIF. The fund will issue negotiable bonds to investors. However, an exit option will be available only after an initial threeyear lock-in period.

- **Viability gap funding**

  To make infrastructure projects financially viable, the government is providing residual financingcalled 'viability gap funding' in Public Private Partnerships (PPPs). Viability gap funding can takevarious forms, including capital grants, subordinated loans, or interest subsidies. The viability gapis determined by open competitive bidding to maximize efficiency and ensure that funding costsare kept at a minimum.

- **Investment by life insurers**

  Life insurers may be allowed to invest in long-term infrastructure bonds for refinancing green-field infrastructure projects. These long-term financial instruments will help life insurance companies develop their annuity business. Insurers have so far remained away from investing in green-field infrastructure projects as these were considered risky. However, insurance being a long term business, insurers have been looking for long term investment avenues, but there are none available other than 10-year government securities. Insurers are also not too comfortable with investing directly in green-field infrastructure projects since these have a high rate of failure.

- **Creation of Infrastructure Finance Companies (IFC)**

  NBFCs holding a minimum of 75 % of their assets for financing infrastructure projects can be classified as infrastructure NBFCs or IFCs. Classification as an IFC leads to ease in mobilizing funds at lower cost as well as flexibility in infrastructure lending. The RBI has allowed scheduled commercial banks to enhance exposure to infrastructure companies up to 20 % of their capital funds. IFCs are not subject to the borrower limits, which restrict NBFCs from lending to any single borrower by 10 % of its owned fund, and any single group of borrowers by 15 % of its owned fund. Also IFCs can raise external commercial borrowings up to 50 % of their owned funds automatically.

- **India Infrastructure Finance Company Ltd (IIFCL)**

  IIFCL renders long-term financial assistance to infrastructure projects and is an apex financialintermediary for the purpose of development and financing of infrastructure projects and facilitiesin the country. Its mandate includes direct lending to eligible projects, refinancing to banks andfinancial institutions for loans with tenors of five years or more, and any other methods approvedby the Government of India. The loans assistance from Special Purpose Vehicles (SPV) is up to20% of the project cost and priority is given to private sector companies for development,financing and construction through PPPs. The authorized capital of the company is currentlyUS$220 million with a paid-up capital of US$22 million.

- **SPVs and project grading**

  Since SPV's are project specific, they generally do not have balance sheet strength and as a result,they tend to get poorer ratings, resulting in higher costs. To overcome this, the Government ofIndia has proposed a special SPV rating based on an assessment of the project; the ratings of thepromoter; and the quality of the concession agreement. Generally for such projects, thecommercial risk rests with the private sector, while the political and regulatory risk is borne by thegovernment. Furthermore, in most cases, the government takes over the liabilities of the entity (tothe tune of 90%) in case of exit, thus essentially providing a sovereign guarantee.

- **Take-out financing**

  The SPV is transferred to the balance sheet of another entity after a predetermined period of time.This has the usual advantages such as overcoming maturity mismatch of banks, getting a goodrating after transferring on to another balance sheet. Such measures can reduce the cost of theproject and encourage private participation.

- **Securitization of debt**

  The securitization of debt would enable banks to lend long term and diversify risk. Securitizationguidelines are a high priority for the Securities and Exchange Board of India (SEBI), and the finalregulation is expected in a year.

- **Mezzanine financing**

  Given the greater familiarity with equity issues, mezzanine financing is being considered as analternative. Mezzanine funding starts off as debt and is later converted to equity.

- **Using foreign exchange reserves**

  The use of India's growing foreign exchange reserves (US$290 billion as on 31st March 2012) tofinance its infrastructure needs is a hotly debated issue. The government announced in the budgetfor FY2008, the setting up of a company which will borrow a small portion of the reserves(around US$7 billion) and lend to infrastructure initiatives seeking to import capital goods or meettheir need for external borrowings. Since the mandate of the company is to invest in infrastructuredevelopment outside India, it would not result in the monetization of the reserves. Although thiswould entail some loss of liquidity in the asset portfolio of the Reserve Bank of India and thefunds set aside may not qualify as reserves, the government believes that this risk is manageablesince the corpus of the company is small in comparison to total reserves. We believe that the prosand cons of using foreign reserves have been debated ad infinitum. We believe the amountinvolved is not large enough to justify the attention this issue has received, and in any case is notby itself going to resolve India's infrastructure finance issues.

Take Out Financing Concept along with its background, objectives, Framework and modalities.

Introduction to Take Out Financing

In the Union Budget speech for the year 2009-10, the Hon'ble Union Finance Minister stated "To stimulate public investment in infrastructure, GOI (Government of India) had set up the India Infrastructure Finance Company Limited (IIFCL) as a special purpose vehicle for providing long term financial assistance to infrastructure projects.The takeout financing scheme is aimed at encouraging commercial banks to lend more to the infrastructure sector. Takeout financing is an acceptedinternational practice of releasing long-term funds for financing infrastructure projects. Itcan be used to effectively address Asset-Liability mismatch of commercial banks arisingout of financing infrastructure projects and also to free up capital for financing newprojects. IIFCL in consultation with the stakeholders evolved a takeout financing scheme,which could facilitate incremental lending to the infrastructure sector".

Under the scheme, banks lend to infrastructure projects but sell a part of that loan to a third party after a certain period of time. This is called takeout financing. It is a tri-party arrangement in which one bank/Financial Institution (FI) finances the project but after a specified period another bank/FI (India Infrastructure Finance Company Ltd. "IIFCL" in India) takes over the loan from the book of the first bank/FI. Right from the day of this formal arrangement the loan will be treated as a contingent liability in the book of the second bank/FI. But when it actually takes over the loan, it will be a proper liability and it will bear the credit risk. Takeout financing is an example of off-balance sheet funding which involves securitizing of infrastructure advances by primary financiers, especially banks, in favour of long-term financial institutions at a mutually agreed or market discovered price.

Take Out Financing scheme is designed to address the maturity mismatches and the risk appetite of certain categories of lenders, allowing them to participate in infrastructure financing (refer figure-4 for details). It also helps second lender to take over outstanding loans from project lenders after 5 years because of second lender’s access to funds with long-term maturity.

Figure-1: Take Out Financing Concept

The amount of debt funding provided by a bank, financial institution or NBFC participating in project funding is constrained by industry, group and borrower limits on exposures that apply to them. To address this constraint second lender may assume a portion of the credit risk in an underlying instrument through its risk participation product.

Objectives of Take Out Financing in Infrastructure Projects

Infrastructure projects have long gestation periods and therefore require long-term funds, which banks are unable to provide because of the risks of asset-liability mismatch. Deposits, the key source of funds for banks, are generally of less than 5-year maturity. When banks lend for longer period they are taking the risk of using short-term funds for providing long-term loans. By selling a part of the loan to an institution that has long term funds banks are able to reduce lending that involves some asset-liability mismatch. This allows banks to lend more to infrastructure projects as their exposure is limited.

A deep and liquid corporate bond market is the financial equivalent of an apple pie-something worthy and desirable. Bond markets play a fundamentally different role from banks by providing long-term finance for investment and allowing firms to diversify their sources of funding. The need to develop this market has long been recognized in India.

There are following objectives of Take Out Financing in Infrastructure Projects

- To boost the availabilityof longer tenor debt finance for infrastructure projects.

- Take-out finance is a good way to manage ALM (Asset Liability Management) as well as exposure norms for the banking sector
- To address Single Party Exposure/Group Exposure and sectoral exposure issues and asset-liability mismatch of Lenders, who are providing debt financing to infrastructure projects.
- The scheme contours need to be worked out in a way to make it win-win for all stakeholders – Developer, Banks/FI as well as Takeout financier.
- To free-up the capital of the Banks/Lenders from the long term funding and to invest the same for short term funding.
- The banking sector is well-positioned to take the construction risk and post-that can be ‘taken-out’ by another investor.
- The pooled ‘taken-out’ loans can also be securitized to bring in long term investors with appropriate safeguards.
- To expand sources of finance for infrastructure projects by facilitating participation of new entities i.e. medium / small sized banks, insurance companies and pension funds.

Take Out Financing Framework

As we know that in infrastructure project financing generally has two parties:

1. Project Company: Which needs to borrow for its project
2. Lending Company: Which may be a commercial bank as well as FI (Financial Institution) : whichlends to the above project company

But in Take Out Financing, there are three parties as shown in figure-5:

1. Project Company (Corporate)
2. Lending Company (which may be a commercial bank as well as FI (Financial Institution)
3. A taking over institution (Which may be a leading Bank, Consortium of banks or Financial Institution)in India IIFCL is a Taking Over institution.

The role of the third party mentioned above (IIFCL or other FI) is to enter into an agreement whichmakes a provision that the first lending company will transfer the part/ whole of the outstanding tothe taking over institution on a predetermined basis. This means that the loan provided by theleading bank / consortium of banks to the project company are taken over after a certain period by thetaking over institution. This saves the lending firm from a possibility of default and Asset LiabilityMismatch or ALM considerations.

Under the Take Out Financing scheme, IIFCL will take over up to 75% of an individual bank's loan or 50% of the residual project cost on to its own books. The loan can be repaid over a 15-year time period. Projects that have a residual debt tenor of at least six years or those which are yet to achieve financial closure will be eligible for the scheme. The project developer, IIFCL and the lender will enter into a tripartite agreement, which would include the rate of interest on the take out amount. IIFCL can take over the loan after four years from the commencement of the project.

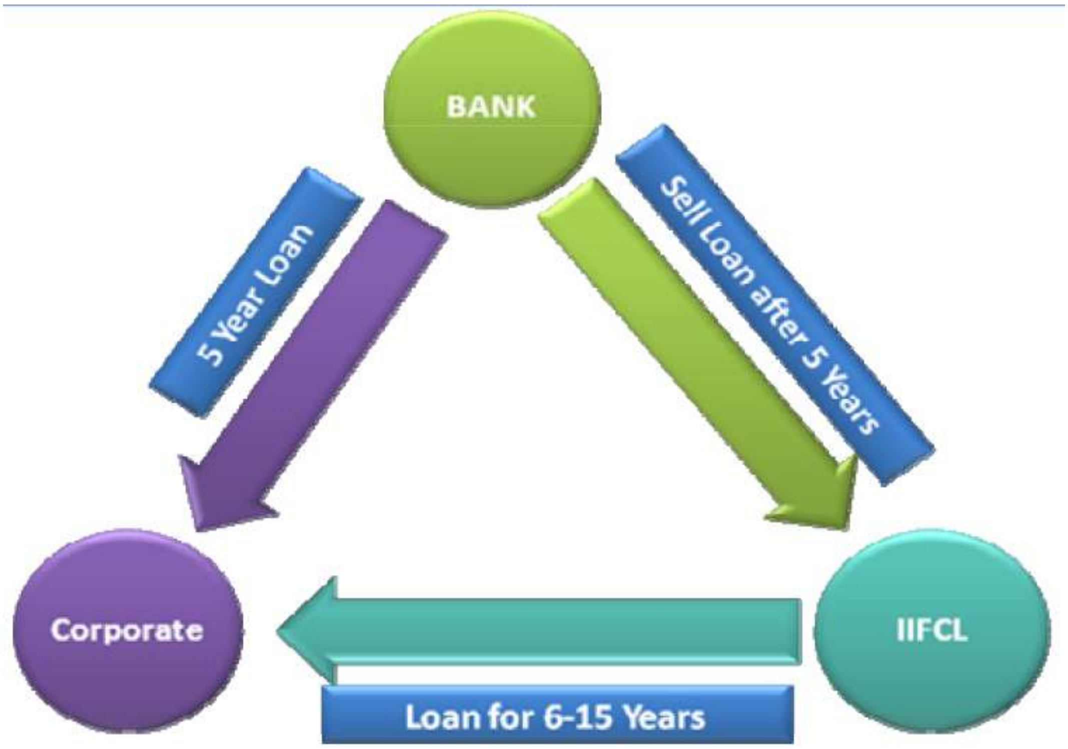

Figure-2: Take Out Financing Framework

Internationally, the concept has a mixed response. But industry players say that if banks have the comfort that their loan can be taken over by IIFCL at a later date, they will provide funds more readily. Banks have, however, not responded as enthusiastically. This is because under the scheme IIFCL will charge an annual transaction fee of 50 basis points (0.50%) on the take out amount. Banks have complained that loans will become more expensive and there will be few takers. The actual litmus test will begin this year when a large number of projects will be bid out.

'Takeout financing', is an accepted international practice of releasing long term funds for financing infrastructure projects in the following ways :—

- Addresses the bank's asset liability duration mismatch (ALM) risk as well as their borrower exposure limits. The banks will be typically holding the loans on their books for 3-5 years. Average core deposit period at banks is about 3-4 years. Hence, it will be able to match the duration of liabilities (loans) to that of its assets (core deposits). Previously banks had to keep the loan (liability) on their balance sheet for 10-15 years (a typical duration of infrastructure project).
- Frees up bank balance sheets to finance new projects and/or repay their liabilities.
- Circumvents the risk management constraints of IIFCL by reducing its exposure to relatively highly risky period of initial construction and operations of infrastructure projects.
- IIFCL would primarily be taking the risk of refinancing the loan.
- Government will not have to assume all the credit risks for Infrastructure projects.
- Uses long-tenor funds available with the Insurance sector.
- Addresses Insurance Regulator concerns about credit quality.

Role of IIFCL in Take Out Financing Scehme[21]

Infrastructure Finance Company Ltd (IIFCL) was established in January 2006 as a wholly owned Government of India company and commenced its operations from April 2006. It was set up for financing 'Viable Infrastructure Projects'. This is an entity set up as a special purpose vehicle by Government of India especially to stimulate public investment in infrastructure. During funding, consultation is made with banks for incremental lending to the

[21] Source: IIFCL website, Planning Commission website and PPP cell website

infrastructure sector. Takeout financing assists securitisation of infrastructure advances by primary financiers, especially banks, in favour of long-term financial institutions. The mechanism, an example of off-balance sheet funding, allows banks to sell assets to financial institutions at a mutually agreed price. IIFCL and banks would now be in a position to support projects involving a total investment of Rs.1 trillion in infrastructure sector.

IIFCL is providing long term financial assistance to various viable infrastructure projects in the country in terms of the SIFTI. SIFTI means Scheme for Financing Viable Infrastructure Projects through a Special Purpose Vehicle and implemented by IIFCL. The authorized capital of the company is Rs20 billion and the Paid-Up capital is company is Rs20 billion currently Rs10 billion. Apart from equity, IIFCL raises long term debt from the domestic market, debt from bilateral and multilateral institutions and in foreign currency through external commercial borrowings. The borrowings of the company are backed by sovereign guarantee.Subsequent to the announcement in the Union Budget of 2010-11, the Government entrusted IIFCL with the task of introducing the Takeout Finance Schemes (TFS).

Under this scheme, the Take-out Financing Institution (TFI), i.e. IIFCL, guarantees to take the infrastructure advance out of the bank's (primary lender's) balance-sheet after a certain pre-agreed time frame. Two alternative types of take-out financing agreements are: (i) unconditional and (ii) conditional. The unconditional agreement is exposed to moral hazard as well as the agency problem, which may make the financing institution tread very cautiously. Therefore, it is felt that a conditional agreement would serve the purpose better.The scheme enhances the availability of long tenor debt finance for infrastructure projects, enables availability of cheaper cost of finance available for the borrower, addresses sectoral / group / single party exposure issues of banks / lenders who are providing long-term debt financing to infrastructure projects, addresses asset-liability mismatch of banks arising out of financing infrastructure projects and also to free up capital for financing new projects.

Earlier IIFCL could take out debt up to 20 %of the total project cost. With this MoU in place, the take out of debt up to 50 %of the total project cost will be possible. This will facilitate banks to take more exposure in new projects, which in turn will help bridge the gap in infrastructure financing to a great extent.IIFCL's plan of doing away with this take-out fee is expected to stimulate greater exposure to long gestation period infrastructure projects; but the impact will be short-term as lending institutions have sectoral lending ceilings.

- IIFCL plans to reduce interest rate on the taken-out loan by 75-200 bps based on the revised risk profile of the project. But, majority of Indian infrastructure projects run behind their schedules which will make them ineligible to take advantage of this incentive.
- The lending banks are apprehensive about capabilities of the taking over institution for assessing different infrastructure projects.
- It is only the unconditional take-out financing which helps lending banks to resolve Asset-Liability mismatch.

Take Out Financing Framework proposed by GOI[22]

In the Union Budget speech for FY 2009-10, the Hon'ble Union Finance Minister launched the Take Out Financing Scheme and it came into existence from April 16, 2010.As a follow-on action, IIFCL undertook a consultative process with key stakeholders and has formulated a 'Takeout Finance Scheme'. The Empowered Committee, in its 15th meeting held on December 1, 2011 modified certain features of the Takeout Finance Scheme. The modified Takeout Finance Scheme is detailed below.

Definitions

In this Scheme unless the context otherwise requires:

- **Borrower Company** means the legal entity which is implementing the infrastructure project to which assistance is to be given by the IIFCL under the Takeout Finance Scheme (Revised).
- **Common Loan Agreement** means the Agreement signed between Lenders and the Borrower.

[22]Source - Modified Takeout Finance Scheme for Financing Viable Infrastructure Projects, IIFCL

- **Executive Committee (EC)** means a committee comprising of the following officials of IIFCL:
  - Chairman and Managing Director - Chairman of the Committee
  - Chief Executive Officer/Executive Director- Member of the Committee
  - Chief General Managers at the Head Office - Members of the Committee
- **Lender(s)** means any of the scheduled commercial banks, or any other participating entity (ies) including insurance companies who have been investing in infrastructure sector, who have extended loans under the Common Loan Agreement to the Borrower. For avoidance of doubt, promoter(s) of the Borrower or the affiliates of the promoter(s) shall not constitute Lenders consequent to any debt financing extended by such promoter(s) and / or any of their affiliates to the Borrower.
- **Project Term** means the duration of the project contract or concession agreement for an infrastructure project.
- **Scheduled Date of Occurrence of Takeout** means the date on which takeout is scheduled to occur as per the terms of the Takeout Agreement.
- **Takeout Agreement / Agreement**means the agreement entered into by IIFCL, identified Lender(s) and Borrower, pursuant to the provisions of the Takeout Finance Scheme (Revised).
- **Takeout Amount** means the aggregate amount of the residual loan agreed to be taken out by IIFCL on the Scheduled Date of Occurrence of Takeout, pursuant to the Takeout Agreement. Sanctioned amount may vary as takeout amount may reduce on the Scheduled Date of Occurrence of Takeout.
- **Total Project Cost (TPC)** means the cost incurred towards the development of the project, as detailed in the Common Loan Agreement. However any amount of debt raised to fund any cost overrun in the project shall be taken into consideration if the same has been agreed to by the Lenders of the consortium.

Objectives of Take Out Financing Scheme:

- To boost the availability of longer tenor debt finance for infrastructure projects
- To address sectoral / group / entity exposure issues and asset-liability mismatch concerns of Lenders, who are providing debt financing to infrastructure projects.

- To expand sources of finance for infrastructure projects by facilitating participation of new entities i.e. medium / small sized banks, insurance companies and pension funds.

Eligibility:

The Scheme will be extended to Lenders as defined in this Takeout Finance Scheme.In order to be eligible for the Scheme, the infrastructure projects need to satisfy the followingconditions:

- The infrastructure project should be from sector(s) as defined in clause 5.2 (c) of SIFTI, which currently reads as under:

  The project should be from one of the following sectors:

  - Road and bridges, railways, seaports, airports, inland waterways and other transportation projects;
  - Power;
  - Urban transport, water supply, sewage, solid waste management and other
  - physical infrastructure in urban areas;
  - Gas pipelines;
  - Infrastructure projects in Special Economic Zones; and
  - International convention centers and other tourism infrastructure projects."

  The above list of sectors will be kept in line with the clause 5.2 (c) in SIFTI and its subsequentmodifications, if any.

- Infrastructure projects which have achieved financial closure and have a residual debttenor of at least 6 years.

  OR

  Infrastructure projects which are yet to achieve financial closure as on the Effective Date.

The IIFCL extends the Takeout Financing scheme for the following kind of projects:

1. Road and bridges, railways, seaports, airports, inland waterways and other transportation projects;
2. Power Projects
3. Urban transport, water supply, sewage, solid waste management and other physical infrastructure in urban areas;
4. Gas pipelines projects
5. Infrastructure projects in Special Economic Zones
6. International convention centers and other tourism infrastructure projects

Extent of Takeout Financing:

The IIFCL provides the takeout financing to individual Lender(s) to the extent of 100% of the residualamount of the loan on the Scheduled Date of Occurrence of Takeout. In the case of Lead Bank, IIFCLprovides takeout finance to the extent of 75% of residual amount of loan. However, the total TakeoutAmount cannot exceed 50% of the total residual loan of the infrastructure project on the Scheduled Dateof Occurrence of Takeout.

Agreement:

IIFCL, the identified Lender(s) and the Borrower enter into a tripartite agreement i.e. Takeout Agreement pursuant to the Takeout Finance Scheme. The Scheduled Date of Occurrence of Takeout is 1 year after the scheduled Commercial Operation Date (COD) of the project. In case, the COD gets changed with the concurrence of the Lenders, the Scheduled Date of Occurrence of Takeout is changed accordingly.

Tenure of the take out amount:

- The tenor of the Takeout Amount with IIFCL shall be (usually up to 15 years) the same as that of the lender(s) in the consortium whose loan will be taken out, as provided to IIFCL at the time of request for takeout. The amortization schedule of taken out loan by IIFCL will be structured to ensure that the last loan repayment (usually it is not scheduled beyond 80% of the Project Term) is scheduled within the Project Term.

- After entering into the Takeout Agreement but before the loans are taken out, if Lenders propose any change in the loan terms i.e. restructuring of loan or related matters, IIFCL will be invited to attend the relevant meeting of Lenders to be held pursuant to the Inter-Creditor Agreement and IIFCL's views will be taken into consideration by Lenders in keeping with the spirit of the Takeout Agreement. If IIFCL is not agreeable to restructuring of loans, it will have an option to opt out of the Takeout Agreement.
- IIFCL will have the option to restructure loans taken out to suit the project ground realities and the cash flows. Such restructuring may include increasing the extent of debt funding in the project if allowed by the project cash flows. However, such an option will be exercised in accordance with the provisions of the Inter Creditor Agreement.

Rate of Interest

The rate of interest for the loan taken-out byIIFCL on the Scheduled Date of Occurrence of Takeout is subject on the basis of credit risk rating of two reputed rating agencies Post CoD and reflected through the Base Rate plus the risk premium.

Takeout Fees,Legal Costs and Other Charges

- IIFCL may charge the Borrower Company, a one-time takeout fee of 0.30% of the total takeout amount which may be passed on to the Banks, whose loans would be taken out by IIFCL. The takeout fee of 0.30%is to be paid by the Borrower Company before entering into the takeout agreement.
- The legal cost including stamp duty shall be borne by the Borrower.
- The projects where takeout finance is being extended shall be subject to Annual Review by IIFCL. The Borrower shall pay to IIFCL Annual Review Charges @ Rs. 125.00 per lac subject to maximum of Rs. 56000.00 (excluding service tax).

Appraisal, Monitoring and Recovery

- IIFCL may consider the proposals having DSCR (Debt Service Coverage Ratio) of at least 1.00.
- The Takeout Agreement will be signed by IIFCL, subject to it being satisfied with the appraisal done by reputed appraising institutions and the same being accepted and adopted by the Lead Bank and subject to its own due diligence process.
- IIFCL will monitor the periodic evaluation of compliance of the project with agreed milestones and performance levels.
- IIFCL with the Lead Bank / consortium Lender shall be responsible for regular monitoring and periodic evaluation of compliance of the project with agreed milestones and performance levels.
- The Lead Bank / Lender shall send periodic progress reports in such form and at such times, as may be prescribed by IIFCL.

Other features of the Takeout Finance Scheme

- For infrastructure projects eligible for the Takeout Finance Scheme but yet to achieve financial closure as on the Effective Date, IIFCL may also take certain direct exposure under SIFTI along with the Lenders.
- In case of Takeout Financing IIFCL's total exposure including direct lending shall not exceed 30% of the Total Project Cost, subject to applicable regulatory norms.
- After entering into Takeout Agreement, in case any fraud or forgery committed by the Borrower comes to the notice of IIFCL, the Takeout Agreement shall stand terminated.
- On the Scheduled Date of Occurrence of Takeout, the takeout will be executed in respect of only those loans, which are classified as standard assets in the books of the Lenders who have signed the Takeout Agreement.

- On the Scheduled Date of Occurrence of Takeout, the takeout will be executed if the Debt Service Coverage Ratio of the project is same as in the case of lenders and in no case lower than 1.0.
- Subject to the provisions of the Takeout Finance Scheme, at the time of occurrence of takeout, it will be the obligation of the Lender(s) and IIFCL, who have entered into Takeout Agreement, to effect the takeout without any protest, contest or demur.
- At any time before or after occurrence of takeout, the Borrower will have the option to prepay the loans pursuant to the relevant provisions of the Common Loan Agreement and Takeout Agreement.
- After entering into the Takeout Agreement but before the loans are taken out, if Lenders propose any change in the loan terms i.e. restructuring of loan or related matters, IIFCL will be invited to attend the relevant meeting of Lenders to be held pursuant to the Inter- Creditor Agreement and IIFCL's views will be taken into consideration by Lenders in keeping with the spirit of the Takeout Agreement. If IIFCL is not agreeable to restructuring of loans, it will have an option to opt out of the Takeout Agreement.
- After the loans are taken out, IIFCL will become a party to the Inter- Creditor Agreement.
- IIFCL will have the option to restructure loans taken out to suit the project ground realities and the cash flows. Such restructuring may include increasing the extent of debt funding in the project if allowed by the project cash flows. However, such an option will be exercised in accordance with the provisions of the Inter Creditor Agreement.
- Any amount of debt raised to fund any cost overrun in the project shall only be covered if the same has been agreed to by the Lenders.
- Once takeout is effected pursuant to the Takeout Agreement, IIFCL's security interest in the project's assets and cash flows shall rank paripassu with senior debt extended by the Lender(s).
- The legal cost including stamp duty shall be borne by the Borrowers who have availed the Takeout Finance Scheme.

Background of Indian Infrastructure Sector

Infrastructure contributes significantly to economic development both by increasingproductivity and by providing amenities that enhance the quality of life. India's emerging economic power, like that of neighbouring China, has been spurred by its momentous growth rates in the past few decades. But years of underinvestment in infrastructure have left the country with poorly functioning transit systems and power grids that have further endangered its slowing economy. Growth slipped from 10.5 percent in 2010 to 4.8% in 2013, according to the World Bank. Burgeoning trade is putting pressure on India's inefficient ports, and rapid urbanization is straining the country's unreliable electricity and water networks. Bureaucratic red tape and political inertia have thwarted the success of foreign partnerships, discouraging further investment. Such large-scale failures have raised sharp debate about how the country's infrastructure weaknesses could threaten its economic future.

India's infrastructure sector has battled decades of dysfunction. Post-independence, the government led a state-centric approach to infrastructure development by building, owning, and managing projects. The system created a host of inefficiencies; after years of unmet demand and growing financial constraints, the government opened the sector to private investment as part of its economic liberalization in the early 1990s. Yet the success of the reforms has been mixed; private participation has fallen short of expectations, and energy shortfalls have proliferated. India ranked 85thout of 148 countries[23] for its infrastructure in the World Economic Forum's most recent Global Competitiveness Report.The endemic dysfunction has bruised India's international standing and discouraged direly needed outside investment.

Data Collection and Result Analysis

Take Out Financing involves a financial institution which has access to long-term funds buying out loans from financial institutions that fund long gestation projects with short-term

[23] Source: World Economic Forum's Global Competitiveness Report 2014.

funds, especially banks. As we know that Take Out Financing is quite new concept in India, it was introduced in FY 2009-10 by GOI (Government of India) through nodal financial institution IIFCL. IIFCL was mandated to take loans onto its books from banks which have been lending to key infrastructure sectors like power plants and roads where project financing requirements are high along with loans are for a 5 to10 years when their funds comprise deposits mostly for less than two years.

However, it is observed that this scheme did not find any takers since IIFCL was willing to buy loans where the projects were complete, avoiding risk of default when projects are not complete. Reason behind this debacle is that since the company has begun payments they might as well retain them on their books.Now that banks are facing rising bad loans and nearly Rs.2 lakh crore[24] is forecast to go for debt restructuring, they are inclined to transfer these loans and get cash to continue lending.Also, banks had to pay 0.3% of the loan value as fees to IIFCL for taking the loan-out. It has since been scrapped. And companies have now been mandated to pay banks 30% of their interest savings to banks whenever take-out of loans benefit companies with lower interest rates.Borrowers, who get concessional funds from us, have to pass on 30% of their interest savings to the original lender. This works as an incentive for the bank to give up a good performing asset.

Considering above scenario; in 2010, IIFCL initiated the Takeout Finance Scheme. Take out financing is an arrangement wherein the initial lenders transfer their loans to IIFCL for up to 50% of their total outstanding. In effect, this is a re-financing operation. If we analyse net sanctions by IIFCL under direct lending (kindly refer Table-6) then as on 31st March 2014 net sanction amount is Rs.35,209 crore for 267 projects whose project cost is Rs.3,64,028 crore. Further analysis indicates following results.

- Out of total 267 projects, Road & Power projects comprises 222 projects which is 83% of total sanctioned projects in India by IIFCL
- Total project cost of 267 projects are Rs.3,64,028 crore, among this Road & Power projects' project cost is Rs.3,36,739 crore which is 92.50% of total sanctioned project cost

[24] As per RBI website

- Data indicates that IIFCL is focusing more on road and power projects in other way round infrastructure project financing demand is coming primarily from road and power projects.

Table-5: IIFCL Cumulative Net Sanctions# under Direct Lending[25] (As on 31stMarch 2014)

Sector	No of Projects	Project Cost (in Rs Crore)	Net Sanction (in Rs Crore)
Road	172	1,79,205	18,944
Power	50	1,57,534	14,613
Airport	2	14,716	848
Port	7	4,490	516
Urban Infra	2	648	64
Railways	0	0	0
PMDO*	34	7,435	224
Total	**267**	**3,64,028**	**35,209**

Net Sanction amount is allocated amount in case of projects which have achieved financial closure; and gross sanction amount where financial closure is yet to be achieved

* PMDO (Pooled Municipal Debt Obligations Facility was set up in 2008 by 4 sponsors IL&FS, IIFCL, IDBI Bank andCanara Bank along with other lenders, to finance urban infrastructure projects on PPP basis).

As per current project financing disbursement scenario of IIFL under direct lending (as mentioned in Table-6) as per the data till 31stMarch 2014, IIFCL has sanctioned infrastructure financing211 infrastructure projects (against 267 sanctioned projects, kindly refer Table-5) whose cumulative total project cost is Rs.3,33,804 crore (against Rs.3,64,028 crore for 267 sanctioned projects, kindly refer Table-6) out of that through refinance and take-out financing option Rs.35,388 crore (after adjustment against Rs.35,209 crore for 267 sanctioned projects, kindly refer Table-5) has been sanctioned (which is 10.60% of total project cost as per Table-6) and Rs.27,185 crore has been disbursed (which is 8.14 % of total project cost and 77% of sanctioned amount as per Table-6) to 211 infrastructure projects in India.

[25] Source: IIFCL Financial Reports FY 2010-11, FY 2011-12, FY 2012-13 and FY 2013-14

Table-6:IIFCL Project Financing Disbursement details[26]

	Financial Year					Cumulative (Till 31st March 2014)
	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**	
No. of Projects assisted*	32	37	53	70	19	211
Project Cost of assisted projects (In Rs. Crore)	51,680	70,037	81,127	1,15,198	15,762	3,33,804
Amount Sanctioned * (In Rs. Crore)	5,616	7,402	8,595	11,514	2,261	35,388
Amount Disbursed (In Rs. Crore, including Refinance & Takeout Finance)	5,095	5,349	5,052	6,205	5,484	27,185

* Gross Sanctions under Direct Lending including PMDO

Under Credit Enhancement Scheme for pilot transactions, till 31st March 2014, IIFCL has accorded in-principle approval to four projects, to enable issuance of bonds amounting to about Rs 2200 crore.

We can also extract interesting picture for Take-Out financing disbursement, if we refer Table-7 then as per data we can understand that IIFCL has sanctioned Rs.6,384 crore under Take-out financing option for 32 projects against total 211 infrastructure projects whose cumulative total project cost is Rs.3,33,804 crore which is 1.90% of total project cost of 211 projects as mentioned in Table-6) and Rs.3,819 crore has been disbursed (which is only 1.14 % of total project cost of 211 projects and 60% of sanctioned amount to 32 infrastructure projects in India.

Table-7:IIFCL Take Out Financing disbursement details[27]

Financial Year	Sanction Amount (in Rs.Crore)	No of Sanction projects	Disbursement Amount (in Rs.Crore)	No of Disbursed projects	Mode of Take Out Financing
2010-11	71	01	42	01	Starting stage

[26] Source: IIFCL Financial Reports FY 2010-11, FY 2011-12, FY 2012-13 and FY 2013-14
[27] Source: IIFCL Financial Reports FY 2010-11, FY 2011-12, FY 2012-13 and FY 2013-14

2011-12	970	04	564	04	Modified (risk based pricing mechanism)
2012-13	2051	12	1150	12	Modified (risk based pricing mechanism)
2013-14	3292	15	1058	15	Modified (risk based pricing mechanism)
Total	**6384***	**32**	**3819**	**32**	

*Under Takeout Finance scheme, till 31st March 2014, IIFCL has sanctioned Rs 6384 cr in 32 projects (after cancellation) for takeout finance from banks/eligible lenders and has disbursed Rs 3819 cr.

In order to popularise Take-Out financing concept, IIFCL has taken following steps.

- IIFCL has now introduced risk-based transparent and non-discretionarypricing mechanism for pricing of the taken out loans linked to IIFCL's base rate and risk premium. To incentivize lenders, ashare of savings of the borrower due to difference in interest rates on the amount of loan taken out is passed on to them.
- In FY 2013—14, IIFCL has introduced the pricing mechanism of the recently announced takeout finance scheme. As per the scheme, funding is now based on credit rating of the project and is declared upfront. The rules related to timing of the takeout have also been changed.
- While for road projects, the takeout can take place after commercial operation date (COD), for other sectors like power, port, metro rail etc. it has been relaxed to six months. Under existing norms, takeout financing can only be done one year after the scheduled COD of the project.
- Another notable change is that the developer can now approach for take out financing unlike earlier scheme where only the banks could exercise such an option.
- Further, lenders, instead of paying commission to IIFCL, would now be compensated upto a certain %age of interest gain accruing to the borrower under the take-out finance scheme. Besides, interest rates to be charged by IIFCL have now become non-discretionary and transparent.

Issues/Problems of Take Out Financing concept in Indian Infrastructure Projects.

While studying current scenario of Take OutFinancingprovided by IIFCL for various infrastructure projects, following Issues/Problems of Take Out Financing concept in Indian Infrastructure Projects was observed.

- **Economic Slowdown**: Due to economic slowdown (as Indian Economy is growing at less than 5% since last 2 years compared to 8-9% growth 5-6 years ago), currently risk outlook has turned slightly negative in the infra sector. Unless, this is cleared, take-out financing deals are less likely to happen in the near future before any meaningful economy recovery and credit growth. Moreover, current profit margin structure doesn't encourage banks/FI to enter into take-out financing
- **High Borrowing Cost:**The Take Out Financing scheme could not achieve the expected interest from the lenders/borrowers mainly due to certain features like additional cost to lender/borrower without any certainty of actual takeout, as actual takeout is conditional of the project achieving minimum DSCR (Debt Service Coverage Ratio) of 1.10 during first year after COD (Commercial Operation Date).
- **Limited Gain:**Further, there was resistance in the operating level of lenders for transferring a good loan asset (which is not having construction risk and doing well) to IIFCL, without any gain to existing lender.
- **Funding Agreement Mismatch:**Banks/FIs are reluctant to part with standard assets and as a result, the developer and IIFCL face difficulty in executing the Takeout Agreement. More, some banks insist on charging prepayment fees in addition to the incentive of 30% of savings to the developer paid by IIFCL to banks. This adds cost for the developer and reduces his available saving.
- **Asset Liability Mismatch:**The Take Out Financing scheme was developed keeping in view the asset-liability mismatch of banks while lending to infrastructure projects. Typically, the liabilities of banks are of three years, while loans for infrastructure development are given for eight to 10 years or even more. In implementing Take Out Financing scheme, there was resistance in the operating level of lenders for transferring a good loan asset (which is not having construction risk and doing well) to IIFCL, without any gain to existing lender. Even the Reserve Bank of India had

also raised concern on the widening asset-liability gap of banks due to lending for such projects.

- **Risk –Return Mismatch:**The Take Out Financing scheme aims to take out the loan from banks after the construction risk is over. However, banks argue that since they have supported the project in the initial construction phase where the risk is perceived to be highest, they'd like to reap benefits during the operation phase, when the majority of risk is over. This is mainly because banks usually do not adequately factor in the project risk at the time of lending and generally price the project risk over the complete life of the instrument, said an executive with a medium-size public sector bank.
- **Charging of different Risk Premium:**According to Ministry of Finance analysis, banks expect to charge the same risk premium over the complete life of the project, which means the bank charges a lower risk premium during the construction phase and a higher risk premium after commissioning, and this practice is required to be rationalised.
- **Competition from other Debt Financing Options:**Recognizing the constraints in incremental financing by banks to the infrastructure sector, the banks have been permitted to enter into take out financing arrangement. To augment debt resources for financing infrastructure, Infrastructure Debt Funds (IDFs) have been launched to refinance projects after completion of the construction work and stabilization of the operations. By refinancing bank loans of existing projects, the IDFs are expected to take over a significant volume of the existing bank debt and this will release an equivalent volume of fresh lending for infrastructure projects. Three IDFs – one NBFC by ICICI Bank Ltd. and two mutual funds by IL&FS and IIFCL have been launched in 2013, of which the first one has already started refinancing operations.
- **Unpredictable and Long Gestation of Infrastructure Projects:**It is observed that a common refrain that was observed across various fora is that take out financing model is not working successfully due to unpredictable revenue and long gestation of infrastructure projects. With all due respect to the proponents of this measure, there is a fundamental issue with the take out financing model. As mentioned earlier, being unpredictable revenue and long-gestation projects, the financiers of infrastructure projects need to pay a lot of attention to the project at the nascent stage. Having

assumed the risk till the project comes on stream and starts generating stable revenues, It is not understood why a bank would be willing to trade a good credit risk for the risk of funding another greenfield project!.

- **Project Credit Risk:**Considering huge project cost and long gestation period of infrastructure projects; It is preferable that the entities such as Infrastructure Debt Funds / IIFCL etc., which are set up to provide take out financing, in view of their expertise in assessing, appraising and financing infrastructure projects, should assume the initial credit risk in such projects and then sell the same to the banks.

Possible Options/Recommendations for Viability of Take Out Financing concept inIndian Infrastructure Projects.

Based on the study of Take Out Financing for Indian Infrastructure projects and scheme understanding along with issues/problems faced by banks/FI following suggestions/recommendation is subjected for effective viability of Take Out Financing scheme in Indian Infrastructure projects.

- **Change of Take-Out Timing:**Certain modifications to the scheme have now been proposed to make it more attractive tolenders/borrower like Takeout to happen immediately on COD (i.e not after one year, no minimum DSCR requirement), thereby reducing conditionality.
- **Sharing of Take-out Financing Fee:**As we know that Take out fees to be paid by lenders availing take-out finance somewhat reduces the attractiveness of this scheme. Takeout fee to be shared / passed on to the lenders assigning its loan in favour of IIFCL, thereby ensuring financial gain to lenders.
- **Attractive Interest rate for Take Out Financing:**It is recommend reducing rate on interestfrom the consortium rate on Takeout, which willbe an incentive for the borrower to facilitateTake-out agreement and agree to pay Take-out fee. With these proposed modifications in place, theTake-out financingscheme is expected to be a successful one in future.

- **Reduction in Collateral Requirement:**Also regulatory environment which expects banks to set aside higher capital for exposure. Also, banks lack the expertise to assess the bankability of projects and to be sure of the construction risks involved, which can enable them to take a confident call on the financing of these projects.
- **Provision of Incentives to Lenders in Construction Stage:**Why should a bank "take out" loans over which it has taken risks to other lender, when the project starts paying.Hence, for take-out financing to pick up, incentives from Government are neededto lender banks.
- **Unconditional take out finance:** The unconditional take out finance involves the assumption of partial / full credit risk by the institution agreeing to take over the finance from the original lender. In such a case the credit facility extended to the borrower will be borne on the books of the original lender till it is taken over. The institution agreeing to take over would have to reflect in its books this obligation as a contingent liability till it actually takes over with partial or full credit risk as agreed upon.
- **Risk Weightage Adjustment:**RBI's insistence that both the Lending institution and the Taking over institution must provide for the risk capital for the loans has rendered this instrument less desirable. Consequently, the lending institution should assign a risk weight of 20%on the asset to the extent to which risk will be assumed by taking over financial institution as the counter party is the financial institution. The portion, which will not be taken over by the taking over institution, will have to be assigned 100%risk weight. Contingent liability on the books of the taking over institution would have to be converted at a credit conversion factor of 100 %. As the counter party exposure will determine the risk weight it will be 100%in respect of all borrowers or zero %if covered by Government guarantee.
- **Conditional take over by next lender:**In this scenario, the taking over institution would have stipulated certain conditions to be satisfied by the borrower before it is taken over from the lending institution. There is, therefore, an element of uncertainty over the ultimate transfer of the assets to the taking over institution. The risk weight and other prescription would therefore have to be different.
- **Income Recognition and Provisioning:** In view of the time period involved in taking over, the possibility of a default in the meantime cannot be ruled out. The norms of

income recognition and provisioning will have to be followed by the concerned bank/FI in whose books the account stands as balance sheet item as on the relevant date. If the lending institution observes that the asset has turned NPA on the basis of the record of recovery, it should be classified accordingly. The lending institution should not also recognise income on accrual basis and account for the same only when it is paid by the borrower / taking-over institution (if the arrangement so provides). The lending institution should also make provisions against any asset turning into NPA pending its take-over by taking over institution. As and when the asset is taken over by the taking over institution, the corresponding provisions could be reversed. However, the taking over institution, on taking over such assets, should make provisions treating the account as NPA from the actual date of it becoming NPA even though the account was not in its books as on that date.

- **Creating loyalty and Commitment from lenders:**Lenders like Banks/FI in India are conservative. They don’t want to sell those assets which are paying high interest rate after the construction risk is over and want to transfer only potentially bad loans thereby affecting the quality of assets on IIFCL’s balance sheet. While, banks are unwilling to sell those loans which are expected to meet their targets.
- **Mixture of Indian and Foreign Lenders:**As per the latest development, RBI has allowed Indian lenders like Banks/FI ‘take-out’ financing route through ECB (External Commercial Borrowings) for loans to infrastructure sector. Thus ‘take-out’ financing through ECB is aimed at refinancing of rupee loans disbursed by domestic banks to the borrowers in infra sectors such as seaport, airport, roads, bridges and power sectors. The domestic banks will take the risk in the initial years and then the foreign lenders can take-out loan with a sense of comfort as the projects are on stream after the initial project risks are over.
- **Popularising IIFCL for Take Out Financing:**Making IIFCL lending more attractive to investors like Banks/FI etc. is most important for success of Takeout Financing. This can be done by lowering their cost of funds, increase the term tenure of their debt & increase the authorized capital.
- **Relaxation of credit Rating Norms:**Relaxing the credit rating norms for Insurance companies to invest in Infrastructure projects. IRDA currently allows Insurance companies to invest only in AAA^{-} & AA^{-} rated debt paper. However, with lack of

high quality debt paper and lull in equity markets, IRDA is considering relaxing the norms to provide firms greater flexibility.

- **Credit Enhancement:**Most of Infrastructure project bonds have a credit rating of BBB. This rating comes under investment grade category; however, the interest rates for these projects tend to be much higher than AA or AA$^-$rated bonds. Credit enhancement is a way to increase the credit rating of an issue. IIFCL has initiated the process to provide partial or full guarantee to bonds issued by promoters of infrastructure projects to raise funds. Securitization of bonds by IIFCL will be crucial as this has become an important source of internal credit enhancement.

Conclusion

Infrastructure growth is a necessity to meet growth requirements of the country. Government ledinfrastructure financing and execution optimally cannot have a balancing act thereby creating aneed to engage private investors for making ends meet. Given the liquidity crunch scenario,alternate mechanism of sourcing risk free finance for long-term projects would be a challenge forinfrastructure development.India needs to urgently bridge the infrastructure gaps that industry and people face every day. As we know that India is the 4thlargest economy in the world, a key factor obstructing its growth and development is the lack ofworld class infrastructure. Estimates suggest that this lack of adequate infrastructure reduces India's GDP growth by 1-2 %every year. Fast growth of the Indian economy in recent years has placed increasing stress on physical infrastructure, such as electricity, railways, roads, ports, airports, irrigation, water supply, and sanitation systems, all of which already suffer from a substantial deficit.

Concluding Observations

In view of the discussions above, research paper has the following conclusions to offer:

- Infrastructure projects in India are perceived as highly vulnerable to risks which constrains financing. Some of the notable risks that need to be reckoned are risks arising during the period of construction leading to time and cost over-runs, operational risks, market risks, interest rate risks, foreign exchange risks, payment risks, regulatory risks and political risks. At times, in the absence of proper risk mitigation mechanism, the costs of the projects tend to increase and such high level of risks cannot be traded off against high returns.

- Under take-out finance, institution/bank financing the infrastructure projects will have an arrangement with any financial institution for transferring to the latter outstanding in respect of such financing in their books on a pre-determined basis. The proposals for take-out finance also help the banks in asset liability management since the financing of infrastructure is long term in nature against their short-term resources.
- There are several variants of the Take-out finance but basically they are either in the nature of unconditional take-out finance or conditional take-out finance though it may involve assuming full credit risk or part of the same. The take-out finance products will involve three parties viz., the project company, taking over institution and the lending banks/FI. Moreover, the company should also recognise the aforesaid arrangement by way of inter-creditor agreement.
- Takeout finance is the product emerging in the context of the funding of long-term infrastructure projects. Under this arrangement, the institution/the bank financing infrastructure projects will have an arrangement with any financial institution for transferring to the latter the outstanding in respect of such financing in their books on a predetermined basis. In view of the time lag involved in taking-over, the possibility of a default in the meantime cannot be ruled out.
- The norms of infrastructure project asset classification will have to be followed by the concerned bank/financial institution in whose books the account stands as balance sheet item as on the relevant date. If the lending institution observes that the asset has turned NPA on the basis of the record of recovery, it should be classified accordingly. The lending institution should not recognise income on accrual basis and account for the same only when it is paid by the borrower/ taking over institution (if the arrangement so provides). The lending institution should also make provisions against any asset turning into NPA pending its take-over by taking over institution. As and when the asset is taken over by the taking over institution, the corresponding provisions could be reversed. However, the taking over institution, on taking over such assets, should make provisions treating the account as NPA from the actual date of it becoming NPA even though the account was not in its books as on that date.

- Even with its huge advantages, takeout financing still havenot taken off as predicted. As indicated in data analysis IIFCL has sanctioned Rs.6,384 crore under Take-out financing option for 32 projects against total 211 infrastructure projects whose cumulative total project cost is Rs.3,33,804 crore which is 1.90% of total project cost of 211 projects as mentioned in Table-6) and Rs.3,819 crore has been disbursed (which is only 1.14 % of total project cost of 211 projects and 60% of sanctioned amount to 32 infrastructure projects in India
- There are many regulatory and funding issues which need to be ironed out along with providing increased flexibility to IIFCL in order for this concept to succeed in India. Take-out financing, it says, is expected to revive on the back of infrastructure growth. It is a method of providing finance for long projects (say 15 years) by sanctioning medium-term loans (five-seven years). It involves an understanding that the loan will be taken out of the books of the financing bank within a pre-fixed period and taken over by another institution, thereby preventing any possible asset-liability mismatch, as most liabilities of banks are in the form of deposits with tenures of less than five years.
- Take Out Financing through ECB is becoming popular under which the takeout has to take place within three years of the scheduled commercial operation date and the loan should have a minimum average maturity period of seven years. The risk weights and provisioning requirements on the loans will be dependent on whether the take-out is unconditional or conditional. In short, the take-out financing facilitates participation of commercial banks with their shot-term funds in the long-term financing of infra projects.

To sum up; the Take Out Financing concept in Indian infrastructure Projects is a quite novel concept and it can become most viable and desirable model, while keeping in view the commercial considerations and removing of hurdles in the smooth implementation of mechanism.This research has tried to study Take Out Financing scenarios in Indian Infrastructure projects and explored various pros and cons of the scheme as discussed in the research paper. As we know that as per 12th Five year plan India will require massive US$ 1.1 trillion of investment and 50% of investment will come through budgetary support from Government of India and remaining 50% will come through equity and direct lending both from public sector and private firms. Here to fill the infrastructure financing gap, Take Out Financing can play vital role provided issues/problems faced by banks/FI (as mentioned in research) being sort out partially by Government of India and IIFCL. Research has tried to highlight possible suggestions/improvement areas to overcome issues/problems highlighted in research for successfully implementing Take OutFinancing scheme for feeding burgeoning Indian Infrastructure project funding requirements.

Reference

1. Asian Development Bank (2006), “Facilitating Public-Private Partnership for Accelerated Infrastructure Development in India"
2. Economic Survey, Govt. Of India
3. "External Commercial Borrowings (ECB) Policy-Takeout Finance" RBI Circular: RBI/2010-11/124, dated July 22, 2010.
4. Financing Infrastructure: Addressing Constraints and Challenges. Finance and Private Sector Development Unit, South Asia Region, World Bank
5. Hiren M Maniar, “Scenario of Viability Gap Funding (VGF) Concept in Indian Infrastructure Projects” - International Journal of Infrastructure Development, Volume 5, NO-01, June 2013, ISSN 0974-9306.
6. India Infrastructure Research - Infrastructure Finance in India - 2011
7. "IIFCL Sector-wise sanctions" http://www.iifcl.org/sanctions25032010.doc dated December 31, 2010.
8. "IIFCL to come under oversight of RBI regulatory" http://www.constructionweekonline.in/article-7508-iifcl_to_come_under_oversight_of_rbi_regulatory/
9. "IIFCL Sector-wise sanctions" http://www.iifcl.org/sanctions25032010.doc dated December 31, 2010.
10. “Infrastructure Challenges in India: The Role of Public-Private Partnerships” - GeethanjaliNataraj, ORF OCCASIONAL PAPER #49 2014
11. *Infrastructure Report,* Expert Group on the Commercialization of Infrastructure Projects
12. Infrastructure Financing By Banks In India: Myths and Realities - Dr. K.C. Chakrabarty, Deputy Governor, Reserve Bank of India at the Annual Infrastructure Finance Conclave organised by SBI Capital markets Limited at Agra on August 9, 2013
13. Infrastructure Financing-A Road Ahead- RajatBhargava.Pragun Publications
14. Infrastructure Financing- Trends, Challenges and Experiences-G Gopal Krishnamurthy. ICFAI University Press

15. Infrastructure Development and Financing- S Ganeshan. Kanishka Publishers Distributors
16. Interim Report of High Level Committee on Financing Infrastructure-(August, 2012), Planning Commission, Govt. Of India
17. Mid Term Appraisal- 11th Five Year Plan
18. "MoU signed between IIFCL, LIC & IDFC with respect to Takeout Finance Scheme" http://finmin.nic.in/press_room/2011/MoU_IIFCL_LIC_IDFC.pdf dated September 17, 2011
19. Projections of Investment in Infrastructure During the Eleventh Plan
20. Planning Commission 2009, Scheme for Financing Infrastructure Projects through the India Infrastructure Finance Company Limited (IIFCL)
21. Planning Commission 2013, Twelfth Five Year Plan (2012–2017), Faster, More Inclusive and Sustainable Growth, Volume I, Planning Commission, New Delhi, Chapter 3: Financing the Plan
22. Reserve Bank of India-Statistical Data
23. "Setting UP IIFCL" http://iifcl.org/settingup.html accessed on December 21, 2011.
24. The Insurance Regulatory and Development Authority (Investment) (Amendment) Regulations, 2001" www.irdaindia.org/inv2.rtf accessed on December 20, 2011.
25. The World Bank (June 2006), Financing Infrastructure: Addressing Constraints and Challenges.
26. The Planning Commission website http://planningcommission.nic.in/
27. The RBI website http://www.rbi.org.in/home.aspx

Websites

1. http://www.business-standard.com/
2. http://economictimes.indiatimes.com/
3. http://www.financialexpress.com/
4. www.ibef.org
5. http://www.iifcl.co.in/
6. http://www.indiainfrastructure.com/
7. http://www. infrastructure.gov.in/event_Regulation_Law_and_Policy_final.pdf
8. http://infrastructure.gov.in/
9. http://planningcommission.gov.in/
10. http://www.pppinindia.com/
11. http://www.rbi.org.in/
12. http://www.worldbank.org/