With such background, Japan will be able to contribute in many ways for revitalizing the Indian bond markets.[1] In this report, proposals for four products were attempted, which were ultimately organized as described below.

1. Support Indian issuers' foreign-bond issues, particularly Samurai bonds (Proposal 1)
   = Arrange additional Samurai bonds issued by India to expand Japanese institutional investors' investment in India.
2. Promote non-Indian issuers' bond issues denominated in local currency (Proposal 2)
   = Have international organizations issue INR-denominated bonds.
3. Promote Indian issuers' bond issues denominated in local currency (Proposal 3)
   = Have Japanese companies advancing into India issue INR-denominated bonds (Issue JBIC guaranteed bonds and NEXI guaranteed bonds covered by insurance).
4. Support Indian issuers' foreign-bond issues, particularly Euro-Yen bonds (Proposal 4)
   = Issue bonds guaranteed by JBIC, etc. for Indian issuers (particularly for long-term funding).

# 3. Financing and Bond Market Utilization for Infrastructure Development

## 3.1 India's Need for Funds for Infrastructure

As stated previously, for India's current government administration, the provision of infrastructure will be indispensable for its stable economic development. For that purpose, funds on the order of US$ 150 billion will be necessary over the next ten years. However, in addition to having a constant budget deficit, the government is limited in its fund raising owing to the Fiscal Responsibility and Budget Management Act (this law obligates the government to hold fiscal deficits within a specific rate of GDP).

For this reason, the development of the bond market is also crucial from the point of view of stable provision of private funds for India's long-term fund requirements for infrastructure.

## 3.2 Providing Funds for Infrastructure Projects in India

(1) Infrastructure Leasing & Financial Services

Infrastructure Leasing & Financial Services (IL&FS) was established in 1987 as the India's first financial institution to serve as a conduit for channeling funds for infrastructure projects. The first group of shareholders was comprised of the Central Bank of India, Unit Trust of India and Housing Development Finance Corp. Ltd. After the capital injection by International Finance Corporation, ORIX Corporation-Japan and others in 1993, IL&FS is presently a financial institution that is 60% owned by Indian financial institutions and 40% owned by foreign parties. As of the end of March 2005, after 20 years of operation, IL&FS maintains a capital account worth more than INR 7.3 billion, has asset size valued at INR 61.0 billion and is earning stable revenues. For investment in infrastructure projects, there are many cases where IL&FS has promoted the project as the core equity provider through its subsidiaries. IL&FS's investments have attracted funds from the private sector, especially from institutional investors. When selecting projects for investment, IL&FS's criteria is not whether

[1] Although it may be difficult at present, "utilization of Indian bond investment trust" can also be considered as one form of contribution in the future. Currently, marketing of Indian bond investment trust to Japanese investors poses difficulty based on the following reasons:
- Investor base is narrow since capital gain can not be anticipated, as with equities.
- Liquidity risk remains due to lack of liquidity.
- Difficulty of managing sufficient portfolio, since private bond market in India is still on a very small scale.

the financing from the central or regional governments would be available, but rather depends on whether the project can obtain funds from the private sector. Though it has been involved in many urban infrastructure projects such as airports, ports and subways, its capital base is simply too small to be the main provider of funds needed for infrastructure projects over the next ten years, estimated at US dollar 150 billion.

(2) Infrastructure Development Finance Company Limited

In addition to IF&FS, the Infrastructure Development Finance Company Limited (IDFC) was founded under the leadership of Indian Government in 1997. Within the Indian financial system, IDFC is classified as a Development Financial Institution. The role of a Development Financial Institution is to foster industries by involving in the management of business operations as one of the shareholders, as well as providing medium and long term funds. In many cases, the necessary funds originate from bonds issued with government guarantees or long term operating funds from the central bank. The present Finance Minister Chidambaram is said to have been a key advocate for the establishment of IDFC. In addition to the Finance Ministry of India being the largest shareholder with more than 20% ownership, its list of shareholders also includes names among Indian commercial banks, International Finance Corporation, Asian Development Bank, Government of Singapore Investment Corporation and Commonwealth Development Corporation. Its purpose for establishment overlaps in many ways with that of IL&FS, and it serves as a source of long term funds and offers advantageous guarantee facilities for infrastructure projects to fill gaps left by the government and private sector.

More than 80% of IDFC's assets are lending to infrastructure projects and a relatively small sum of INR 2.2 billion is capital contributions. Broken down by sectors, 34% of this investment to infrastructure is to energy (primarily electric power), 27% into communications and 26% to transportation. Recently, in addition to these three sectors, there has also been a focus on real estate for commercial and factory use. Since its establishment, there was also a time when questions were raised about the "Identity" of IDFC because of the lack of any clear distinction between it and IL&FS and also because for a considerable time, the two institutions shared a common chairman. Specifically, there was strong criticism that IDFC was consistently cautious in its stance toward infrastructure projects, that significant amounts of time were required for it to make investment and lending decisions, that it lacked any dynamism, and that its primary merit for existing was to function merely as a think tank to provide advisory services. As a result, there has been very small percentage of bad assets and its finances are regarded as being in sound condition, i.e., as of the end of March 2005, its capital account stood at INR 18.9 billion, assets were INR 84.3 billion and it had an after-tax profit of INR 3.0 billion (ROE of 15.9%). Yet despite its soundness as an enterprise, IDFC has also received criticisms as being a "Brahmins of Infrastructure" in that it lacks the sense of mission and business approach which, ostensibly, is to be proactive in providing funds for infrastructure development. Accordingly, given the scope of its assets, and similar to IL&FS, it is difficult to imagine IDFC being a principal player in furnishing the large amounts of infrastructure finance that India will need in the future.

Thus, given this approach to infrastructure financing, the debate about the significance of establishing IDFC and the stronger control that the Finance Ministry would like to exercise over IDFC, there have been media reports of a merger between IDFC and IL&FS or having IDFC put under the control of a

bank with close ties to the government such as the State Bank of India.

(3) India Infrastructure Finance Company Ltd.

While conjecture still flies around regarding the future of IDFC, in November 2005, the government of India decided to establish the India Infrastructure Finance Company Ltd. (IIFC) as a financial institution to be dedicated solely to providing new infrastructure financing[2]. The IIFC was formally established in January 2006, and although five of its directors from the government have been announced, the CEO appointment has yet to be decided. According to speech with the Minister of Information and Communications, the IIFC is planned to be 100% government owned with an initial paid up capital of INR 100 million that will later be increased to INR 10 billion. It will raise long term fund (10 years or longer) to provide financing for infrastructure projects. Borrowing is expected to be from bilateral or multilateral lending agencies such as the World Bank and Asian Development Bank as well as private sector banks both within India and outside the country. Where necessary, it will be backed by government guarantees. For FY 2005, the federal government established a guarantee line of INR 100 billion[3].

Both IDFC and IL&FS are strongly inclined to private businesses and their criteria for making investment and loan judgments are generally based on the cash flows of the projects concerned. On the other hand, it has been reported so far that IIFC is expected to be more oriented towards the lending policy that of public sector.

The following is a summary of the financing for infrastructure projects by the IIFC that have been announced thus far:

A. Financing will be limited to infrastructure projects that are commercially viable (including those projects which become viable after receiving Viability Gap Funding mentioned below).
B. The amount of financing provided by the IIFC is to be limited to a maximum of 20% of the project cost. If the government is to provide grants through VGF, the amount of such grants shall be first deducted and the IIFC's financing shall be 20% of the remaining balance.[4]
C. The IIFC may either conduct direct lending to infrastructure projects or on-lending through commercial banks.
D. In principle, the IIFC will not carry out independent appraisals and reviews of infrastructure projects, but rather, will depend on those prepared by the leading banks of the syndicate that handle the financing for such projects. However, this would be limited to cases where the level of commitment by the leading managing bank for a project is 25% or more of all debt financing.
E. The types of infrastructure projects for which the IIFC is expected to provide financing are as followings:
   (a) Roads, bridges, railways, seaports, airports inland waterway and other transport projects;
   (b) Power;
   (c) Urban transport, water supply, sewage, solid waste management and other physical infrastructure in urban areas;

[2] IIFC was established on the assumption that it is to provide financing for infrastructure projects, not investment in equities.

[3] India's government officials are assuming that this guarantee quota by the government will be available over the next 10 years. The 10 years' amount is equivalent of US$ 30 billion, and accounts for 20% of the total of US$ 150 billion necessary to India over the next ten years as funds for building infrastructure and is consistent with IIFC's providing of financing with 20% of project cost as the upper limit.

[4] Comment from the officer in charge at Ministry of Finance, Department of Economic Affairs

(d) Gas pipelines;
(e) Infrastructure projects in Special Economic Zones; and
(f) International conference centres and other tourism infrastructure projects.

Up to the present time, the IIFC has not started full operations and there are no projects for which financing has been approved. Nevertheless, since it is a institution that is 100% government owned and established for the purpose of conducting long-term funding for infrastructure projects with government guarantee, a number of organizations such as the World Bank, ADB, JBIC and other members of the international financial industry, including some Japanese banks, are showing greater interest in providing funds to the IIFC, and some have even submitted proposals. Since the amount of financing by the IIFC in its first fiscal year alone is expected to exceed the asset size of both IL&FS and IDFC, the impact on infrastructure financing in India would be substantial. Financial Industry will closely monitor the activities of the IIFC as to what stance it will take toward infrastructure financing.

(4) Viability Gap Funding

Viability Gap Funding (VGF) is a measure proposed by the government of India around 2003 to promote India's Public Private Partnership in Infrastructure (PPP), and the general outline of this policy was announced in May 2005. The main objectives of VGF are to provide financial support to bridge the viability gap of the infrastructure projects undertaken through PPP by offering government grant. Such government grant, in principle, is to be limited to 20% of the project cost.[5] The government has set aside INR 15 billion for this purpose in the FY 2005 budget and INR5 billion in the FY 2006 budget respectively.

The following is a summary of the VGF announced by the India Ministry of Finance, Department of Economic Affairs:

A. While the normal course will be for the government to provide grants during the period of construction, exceptions will be permitted with the consent of a Committee (i.e., Empowered Committee) under the Chairmanship of the Secretary (Economic Affairs), and including Secretary Planning Commission, the Secretary (Expenditure) and the Secretary of the line ministry dealing with the subject.
B. Applications for funds under VGF will be approved by different organizations based on the amount, i.e., amounts less than INR 1 billion, amounts of INR 1~2 billion, and amounts of more than INR 2 billion.
C. In the first two years of operation of the VGF program, projects meeting the eligibility criteria will be funded on a first-come, first-served basis. In later years, if need arises, funding may be provided based on an appropriate formula, to be determined by the Empowered Committee, that balances needs across sectors in a manner that would make broad base the sectoral coverage and avoid pre-empting of funds by a few large projects.
D. Although the infrastructure projects for which VGF is expected to be available will be almost entirely the same as those for the IIFC, gas pipeline projects are not to be included.

Certain problems have been pointed out regarding VGF such as the fact that there is still lack of clarity regarding the criteria to be applied when making decisions to provide grants and the fact that the amount

[5] If the main sponsor of a project is the government or a government organization, the sponsor at its discretion will be able to grant an additional amount of up to 20% of the project cost.

to be provided is extremely small relative to the amounts needed for India's infrastructure. As such, there are doubts about its actual effectiveness. There are many hurdles one has to face while implementing an infrastructure project in India, such as land acquisition, harassment by environmentalists and plethora of litigations in the name of public interest. With the creation of the VGF scheme, it may be fair to say that projects that have received visible assistance in the form of grants from the government would have a much greater ability to go forward, since they will be regarded as projects that have obtained strong support from the government.

### 3.3 Specific Product Proposals

In terms of ways to utilize the bond markets to procure funds for infrastructure, the following three products are conceivable as a result of investigating cases in India and other countries.

(1) Utilizing the bond markets as a method for funding through IIFC
(2) Utilizing the bond markets through securitization of existing projects (ABS)
(3) Utilizing the bond markets to repay existing project financing by issuing corporate bonds

Each product will be explored below.

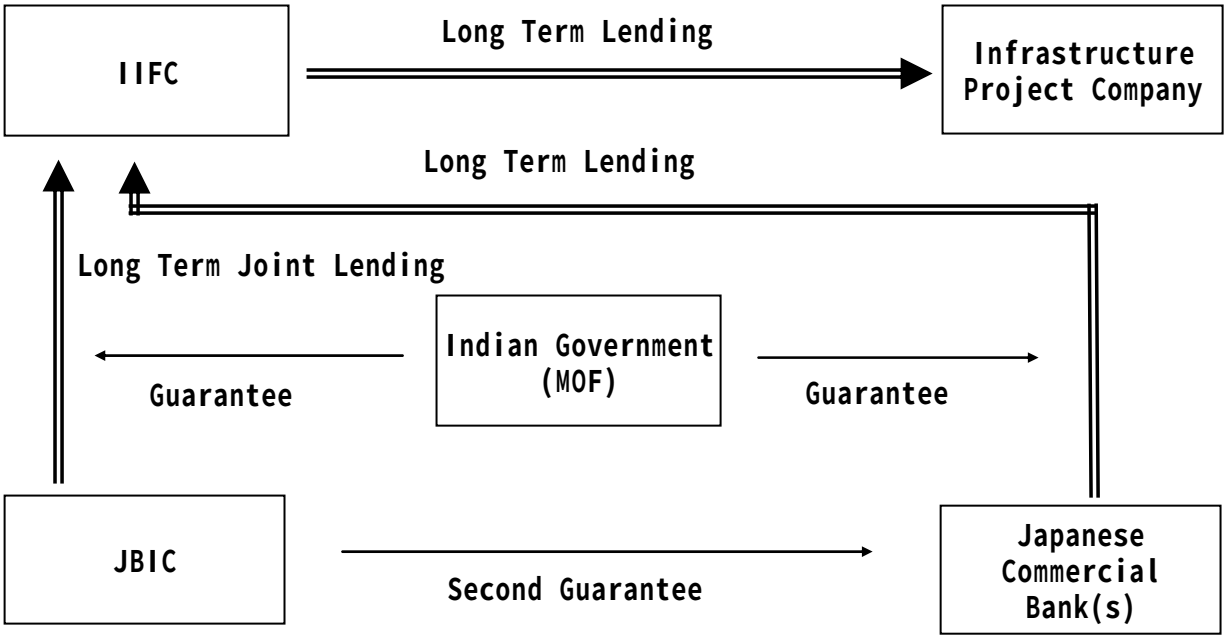
#### 3.3.1 Utilizing the Bond Markets as a Method for Funding through IIFC (loans and bonds)

With government guarantees provided for IIFC's liability, financing should be done by exploiting its creditworthiness to the maximum in order to keep funding costs as low as possible. On-lending schemes for infrastructure projects will be in line with the purpose of IIFC's establishment. As mentioned previously, in terms of sources of funding, many variations are conceivable, including those involving the World Bank and ADB. Here, we would like to focus on product proposals with cases limited to those in which the participation of Japan's financial institutions would be possible.

**A. Co-financing by JBIC and Commercial Banks**

This scheme would involve having JBIC and commercial banks jointly lend long-term funds to IIFC, which IIFC would on-lend to infrastructure projects. The government of India would provide guarantees to JBIC and commercial banks for the total sum IIFC procures. JBIC would provide the commercial banks with a second guarantee for the portion they have loaned. At present, the general view on Indian risk among Japanese commercial banks is that although sovereign risk of up to 5 to 7 years can be taken, long-term lending exceeding 10 years for the purpose of providing infrastructure, which IIFC is hoping to raise, will require credit enhancement from export credit agencies such as JBIC. Reflecting this market view, in these product proposals, JBIC's guarantee of the portion loaned by commercial banks has been incorporated into the scheme. In the event that it is somehow difficult for JBIC to provide guarantees, as a modification of this product proposal, it would be possible to shorten the maturity of the portion loaned by commercial banks to 5 to 7 years and not commence repayment of loan from JBIC until said portion has been redeemed. In order for JBIC to advance loans to IIFC and also to provide guarantee for IIFC's payment to commercial banks, the involvement of the Japanese government and Japanese corporations in some form (Japan interest) in the aforementioned infrastructure projects will be essential.

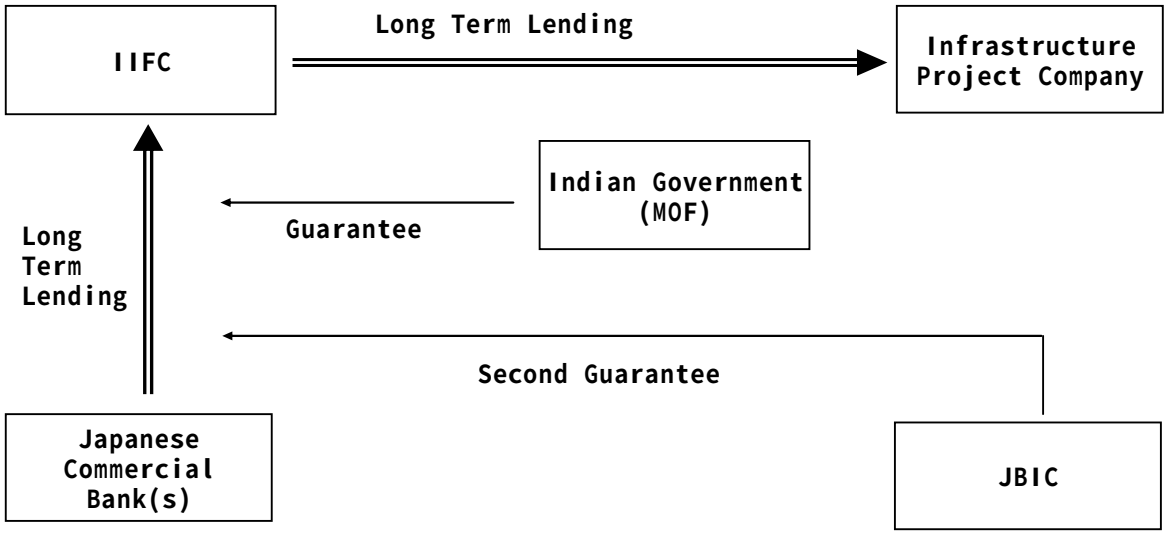
**A, Long-Term Joint Lending by JBIC and Japanese Commercial Bank(s)**




**B. Joint Lending by Private Banks with the Joint Guarantee of JBIC and the Indian Government**

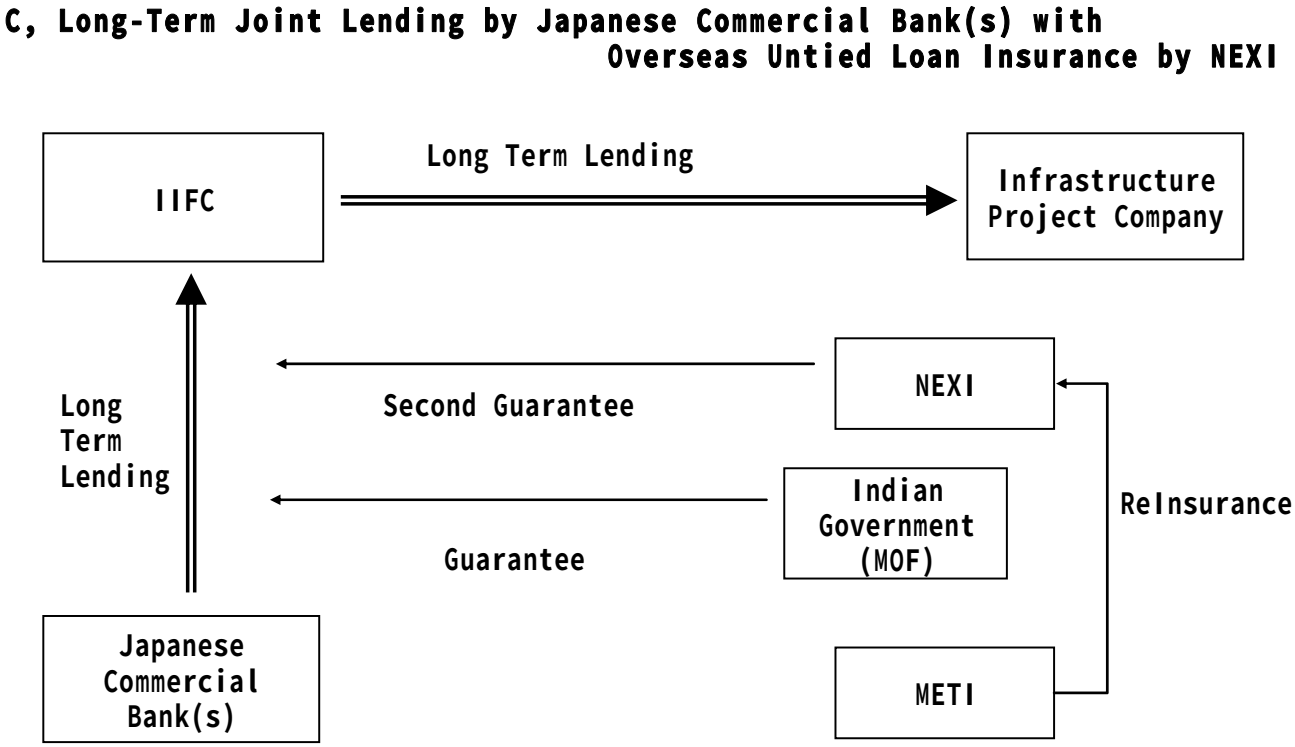
Although this scheme is similar to Scheme A, financing to IIFC would be done by joint lending through commercial banks with the guarantee of the Indian government. JBIC's function would be to provide commercial banks with a second guarantee (in this case, with a ceiling at 97.5% of the amount of the commercial banks' loans). The difference between B and A, described above, would be the difference in the extent of JBIC's involvement in the relevant cases.

**B, Long-Term Joint Lending by Japanese Commercial Bank(s) Guaranteed by JBIC**



**C. Lending with Overseas Untied Loan Insurance (OULI) from Nippon Export and Investment Insurance (NEXI)**

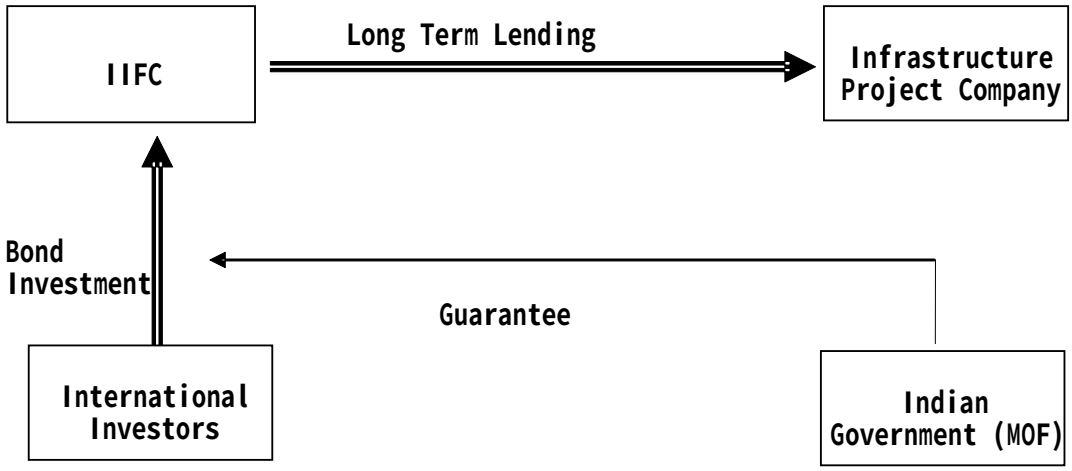
This option is the same as B in terms of commercial banks making long-term loans to IIFC with the Indian government's guarantee, but instead of JBIC's second guarantee, it would be assumed that NEXI would provide OULI. OULI divides the causes of borrowers going into default in terms of emergency risk (restrictions on or prohibition of currency trading; war, revolution, or civil war; etc.) and credit risk (borrower's bankruptcy or delay in fulfilling obligations by 3 months or more). As a rule, this system provides 100% coverage of the amount of loans in the former case and 95% in the latter case.




**D. IIFC's Issuance of Bonds Guaranteed by Indian Government in the International Bond Market**

In the case of funding in the capital market, it is conceivable that IIFC will engage in long-term fund procurement in the Euro or Global bond markets with the government's guarantee. With the guarantee from the Indian government (long-term sovereign rating: Moody's Baa3; S&P BB+), IIFC should be given the same credit rating as the government. India's considerable economic growth and attention worldwide, and the fact that there has not been any issue by the government nor any government agencies, it is highly possible that IIFC's issue will attract attention because if its scarcity. Therefore, a bond issue even in excess of 10 years may be possible. As project completion time and anticipated cash flows will be reflected to a certain extent in repayment, it would also be meaningful to have tranches layered and issue bonds with different maturities, such as 5, 7 and 10 years.

D. **International Bond Issuance by IIFC Guaranteed by Indian Government**

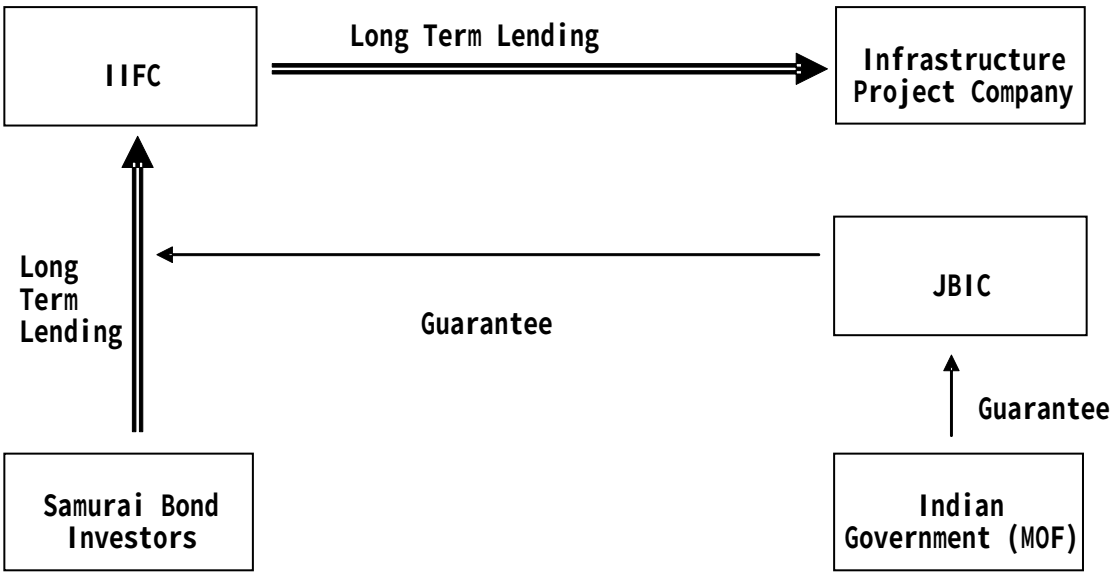



**E. Samurai Bond Issuance (Guaranteed by JBIC) in Japan's Capital Market**

Over the past few years, non-Japanese issuers' issuance of yen-denominated (Samurai) bonds in Japan's capital markets has shown sound growth, going from 25 cases of such issuance and the amount raised of ¥624.5 billion in 2002 to 49 cases and ¥1.789 trillion of amount raised in 2005. As a peculiar phenomenon in Japanese domestic corporate-bond market, relations between issuers' credit ratings and the credit spreads paid are becoming distorted. Risk-return relation may not necessarily be on an appropriate level. At the same time, for Samurai bonds issued by non-Japanese issuers, appropriate credit spreads are paid in line with the international market, based on the principle of fair risk, fair return. This is said to be one of the factors for the increase of Samurai bond issuance. In addition, because of the narrowing of the dollar-yen swap basis, when issuers swap funds procured in yen for US dollars, the market environment makes it possible to bring the post-swap, US dollar-basis funding cost to attractive levels. Coupled with this fact, the Samurai bond market has grown from one centering on issuers whose creditworthiness was somewhat of a concern, as in the second half of the 90s, to one in which numerous issuers over wide range of credit spectrum, including highly rated issuers to high yield issuers to participate.

With fund procurement through Samurai bonds from IIFC envisioned, the general view by Japanese investors that there is some concern on India's long-term risk in excess of 10 years, makes JBIC's guarantee necessary. As in cases A and B, if funding through Samurai bonds were limited to a medium term of 5 to 7 years, bond issuance would be possible with the guarantee of the Indian government alone.

E. **Samurai Bond Issuance by IIFC Guaranteed by JBIC**




[Reference Materials]

IL&FS Website

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Government of India Website

The Japan Center for International Finance, Report

Financial Express, 2005.11.7

Businessworld

### 3.3.2 Utilizing the Bond Markets through Securitization (ABS) of Existing Projects

Investment for the construction of infrastructure necessitates major fund procurement and generally involves long-term payback period. With infrastructure projects, which are constructed by means of government investment and loans, funds can not be recovered for a long time after such projects have been completed and this makes it inevitable for such investment to become fixated.

If the operating revenue generated by infrastructure following construction can be securitized and private funds procured by using it as collateral, the funds from government investment and loans invested in the construction of said infrastructure can be recovered and new infrastructure investment implemented.

When private investors look into investing in infrastructure projects still in the planning or construction stage, they must prudently judge not only completion risk but whether the public nature of the project as social infrastructure will be maintained following completion and into the future. They must also determine the extent to which events could affect the creditworthiness of fund procurement entities. Moreover, consideration must be given to the fact that from the perspective of public interest, the essential profitability of social infrastructure projects tends to be low.

Even when government credit is granted, fund procurement from the private sector for investment in

infrastructure projects prior to the operation stage could involve increased funding costs, accelerated funding timeframes and limited sums.

In comparison, for social infrastructure projects for which a set operating time has passed, it is possible to provide private investors with data on operability and profitability. It will also become somewhat easier to determine project continuity and the accompanying future profitability.

Specifically, a government can invest 100% to establish a new special purpose company (SPC) that will issue bonds ("SPC bonds") to be sold to private investors. With SPC bond issue proceeds, the government can recover the government funds invested in the infrastructure projects concerned. Correspondingly, the fees that users of government-owned toll roads, bridges, tunnels and other target public facilities have conventionally paid to the government will be applied to SPC bond principal and interest payment funds.

With the government issuing bonds that securitize the right retained by the government to receive fees (government bonds) and having the SPC hold them, the SPC bond principal and interest payments can be secured for private investors who have bought SPC bonds. SPC bond issue proceeds will be applied for the SPC's purchase of government bonds. In other words, this means that the government has procured new funds from private investors who have purchased SPC bonds. Such private funds concerned can thus be applied to other infrastructure investment and loans.

Furthermore, in setting up the above scheme, rules must be organized to regulate the systems for managing deposits made to SPC accounts as infrastructure usage-fees, the cost burden in cases when additional capital expenditure becomes necessary or when any change has been made, such as usage-fee rates.

One case that can be cited in which such a scheme was applied and private funds were procured through the securitization of existing infrastructure projects was for the Cross-Harbour Tunnel, a transit facility between the Kowloon area and Hong Kong Island. This project is one of six infrastructure projects that the Hong Kong government has securitized. With toll revenues as collateral, bonds were issued through Hong Kong Link 2004 Limited and sold to private investors. Such case is introduced below.

"Hong Kong Link 2004 Limited" Schematic Overview

【Hong Kong Link 2004 Limited（Issuer）】

Being a special purpose company (SPC) established through the government of Hong Kong's 100% investment, this SPC will issue SPC bonds for institutional and personal investors ("notes" for the former; "retails bonds" for the latter). These SPC bonds will be secured with toll revenue bonds that securitize the right to receive revenues pertaining to infrastructure projects (net toll revenues).

【Toll Revenue Bond】

By purchasing from the government of Hong Kong and holding the toll revenue bonds that the government issues, the SPC will retain the right to receive the sum of money equal to the net toll revenues of the target infrastructure project. It should be noted that future funds for major capital expenditure (CAPEX) for the relevant infrastructure project will be funded separately by the government of Hong Kong and shall not be paid out of the "net toll revenues."

【Tolled Facilities 】

All of these six transport infrastructure facilities retained by the government of Hong Kong demonstrated solid business results within a reasonable period after they began operating. Setting up of scheme targeting multiple key infrastructure facilities enabled the decentralization of operation risk.

（Units: km, HK$, & no. of vehicles/day）

| | Began operating | Distance | Toll | Traffic volume |
|---|---|---|---|---|
| Aberdeed Tunnel | 1982 | 1.9 | 5 | 57,000 |
| Cross-Harbour Tunnel | 1972 | 1.9 | 8~30 | 120,000 |
| Lion Rock Tunnel | 1967/1978 | 1.4 | 8 | 88,000 |
| Shing Mun Tunnels | 1990 | 2.6 | 5 | 53,000 |
| Tseung Kwan O Tunnel | 1990 | 0.9 | 3 | 65,000 |
| Lantau Link(Bridge) | 1997 | 4.1 | 20~80 | 41,000 |

【Notes and Retail Bonds】

The SPC issues bonds (SPC bonds) targeting institutional investors and personal investors. From the bond issue proceeds, the SPC purchases and holds the "toll revenue bonds" issued by the government of Hong Kong. "Net toll revenues" are appropriated to the bond principal and interest payment funds made to institutional investors and private investors.

Retail Tranche

Total value of issue: HK $2,470M (Units: year, HK$ 1 million, & %）

| Tranche | Period | Value of issue | Coupon (spread) | Investment yield |
|---|---|---|---|---|
| A | 3 | 880 | 2.75(45bp) | 3.180 |
| B | 5 | 800 | 3.60(60bp) | 4.128 |
| C | 7 | 790 | 4.28(75bp) | 4.803 |

Institutional Tranche

Total value of issue: HK $3,530M (Units: year, HK$ 1 million, & %）

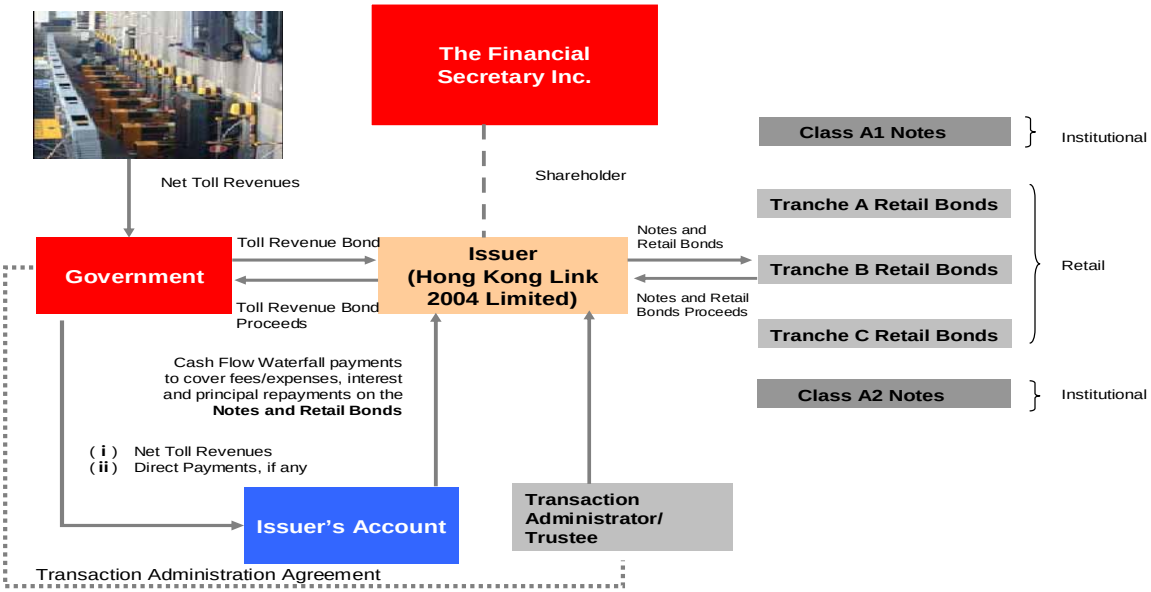
| Tranche | Period | Value of issue | Coupon (spread) | Investment yield |
|---|---|---|---|---|
| A1 | 1 | 450 | 1.19(4bp) | NA |
| A2 | 12 | 3,080 | 3month Hibor＋36bp | NA |

Note: Coupon (spread) figures are estimates. A2 redemption is with amortization. Bond coupon rate will be reviewed after six years. At the same time, the issuer (SPC) will have the right to call and bonds can be redeemed from the sixth year on until final maturity. Assumed average life: 3.4 years.

The total value of the call for purchase from institutional investors and personal investors substantially exceeded estimated issuance, and sales status was highly favorable. A1 institutional tranche placement was on the order of 32% for the central bank, 17% for commercial banks, and 17% for pension funds and insurance companies, while 90% of A2 tranche was for commercial banks.

Along with being the first case of transit facility securitization in Asia, this scheme amounted to the largest scale of securitization project for Hong Kong.

With securitization of well-performing existing projects, as explained above, it will also be possible for India to consider on-lending funds to other projects.




[Reference Materials]
IFR No. 1531, IFR No.1532
Hong Kong Link 2004 Limited Web(www.hklink2004.com.hk)

### 3.3.3 Utilizing the Bond Markets to Repay Existing Project Financing by Issuing Corporate Bonds

"Project financing" will be interpreted as follows: a method for financing a specific project in which resources for the interest payments on and the repayment of those finances are limited to the cash flow generated by the relevant project, with the assets of said project relied upon entirely as the collateral for said financing.

In addition, the function of project financing shall be to make rational risk allocation among the parties concerned possible by segregating only the project, as a SPC, from the sponsor entity and stipulating all related rights in individual contracts between the SPC and the parties concerned.

For this purpose, it will be explained to banks and other creditors that (i) while they take a high risk in providing non-recourse or limited recourse loans, (ii) risk allocation will be rationalized by collateralizing all assets of the project.[6]

[6] *Corpus Juris Finance*

When risk is taken on prior to a project's completion, the borrowing rate will be higher for the part of the risk equivalent to whether the project will be completed or not. For social infrastructure projects for which a set period of operation has elapsed since completion, data on operability and profitability can be provided. In addition, because project continuity and accompanying future profitability can be readily judged to a certain extent, the high borrowing rate at time of the initial borrowing can sometimes be mitigated through refinancing.

In general, refinancing of project loans is done by means of additional project loans (with rates lower than the initial one). In Thailand, however, corporate bonds are sometimes issued for refinancing.

Cases in which refinancing through corporate bonds is possible are special ones in which contracts have been entered so that the risk can be regarded as sovereign, such as when the project's product is electric power and the other party to the sales contract is an electric power corporation which is wholly owned by the Government.

In terms of the period for issuing corporate bonds and repayment methods, various arrangements can be introduced such as layering of tranches in light of the project's cash flow prospects.

Even with project financing in India, as in cases like Thailand in which a project that prospers following completion can be regarded as a sovereign risk, refinancing through corporate bond issuance is possible. This could simultaneously expand the investor base, reduce interest on infrastructure funds and vitalize the bond markets

## 4. Methods for Japan's Cooperation

An overview of India's corporate-bond market would first reveal that the outstanding balance is extremely low in terms of ratio to GDP. Next, concerning secondary markets, stamp tax is levied against each trade. In addition, clearing systems are underdeveloped. These are issues that remain. For those who participate in the market, the life insurers and mutual funds limits on investing in corporate bonds is imposed, making such corporate bonds unattractive as investment vehicles. As long as this current state of the bond market prevails, it will be difficult to expect the corporate bond markets to function as the major supplier of funds for infrastructure investment.

So far, financial systems, whose role is to act as the financial intermediary, have depended heavily on banks and on the classic method of taking deposits and providing loans. However, keeping in pace with the growth of the Indian economy and manufacturing industry, funding demand from the manufacturing industry would increase. With the banks' credit-deposit ratio reaching a low of 49.9% in 1998 and then rising to 68.1% by 2005; in future, bank lending could become stringent.

It is natural to turn to the domestic bond market for long-term funds for infrastructure investment. Even among India's financial experts, efforts are underway geared to attracting life insurance, pension funds and private funds to the corporate bond markets. In particular, the modernization of settlement systems, the provision of trustee systems that operate from the perspective of protecting the bond holder's rights especially in the event of defaults and debt collection systems are some of the issues which need to be