Report and Recommendation of the President to the Board of Directors

Project Number: 43932
August 2012

Proposed Guarantee Facility
Credit Enhancement of Project Bonds
(India)

Asian Development Bank

CURRENCY EQUIVALENTS
(as of 10 August 2012)

Currency unit	–	Indian rupee/s (Re/Rs)
Re1.00	=	$0.0181
$1.00	=	Rs55.16

ABBREVIATIONS

ADB	–	Asian Development Bank
ALM	–	asset and liability management
COD	–	commercial operation date
CRAR	–	capital to risk-weighted assets ratio
ESSF	–	environmental and social safeguards framework
GJEPL	–	GMR Jadcherla Expressway Private Limited
IIFCL	–	India Infrastructure Finance Company Limited
IRDA	–	Insurance Regulatory and Development Authority
km	–	kilometer
PCG	–	partial credit guarantee
PFI	–	participating financial institutions
PPP	–	public–private partnership
RBI	–	Reserve Bank of India
SPV	–	special purpose vehicle
TA	–	technical assistance

NOTES

(i) The fiscal year (FY) of Indian financial institutions ends on 31 March. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2010 ends on 31 March 2010.

(ii) In this report, "$" refers to US dollars

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PROJECT AT A GLANCE

1. Project Name: Credit Enhancement of Project Bonds   **2. Project Number:** 43932

3. Country: India   **4. Department/Division:** Private Sector Operations Department / Private Sector Infrastructure Finance Division 1 and South Asia Regional Department / Public Management, Financial Sector and Trade Division

5. Sector Classification:

Sectors	Primary	Subsectors
Energy		Energy sector development, conventional sector
Transport and ICT		Road transport, rail transport, air transport, water transport
Finance	√	Money and capital market, finance sector development

6.Thematic Classification:

Themes	Primary	Subthemes
Private sector development	√	Public–private partnerships
Economic growth		Promoting economic efficiency and enabling business environment
Capacity development		Institutional development

6a. Climate Change Impact:

Adaptation	
Mitigation	
Not applicable	√

6b. Gender Mainstreaming:

Gender equity theme	
Effective gender mainstreaming	
Some gender benefits	
No gender benefits	√

7. Targeting Classification:

General Intervention	Targeted Intervention: Geographic dimensions of inclusive growth	Targeted Intervention: Millennium development goals	Targeted Intervention: Income poverty at household level
√			

8. Location Impact:

Rural	
Urban	
National	High
Regional	

9. Nonsovereign Operation Risk Rating: Projects under the facility to be rated NSO 6- NSO11

10. Safeguard Categorization:

Environment	FI
Involuntary resettlement	FI
Indigenous peoples	FI

11. ADB Financing:

Sovereign/ Nonsovereign	**Modality**	**Source**	**Amount** ($ million)
Nonsovereign	Partial credit guarantee	OCR	Rs7,168 million including interest equivalent to $128 million including interest

12. Cofinancing:

Financier	**Category**	**Amount** ($ million)
India Infrastructure Finance Company Limited or other eligible partner financial institutions	Partial credit guarantee	Rs7,168 million including interest equivalent to $128 million including interest
Total		

13. Counterpart Financing: Not applicable

14. Aid Effectiveness: Not applicable

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed guarantee facility for the Asian Development Bank (ADB) to issue partial credit guarantees (PCGs) in favor of eligible Indian financial institutions providing credit enhancement for infrastructure project bonds in India.[1]

II. THE FACILITY

A. Identification and Description

1. Identification

2. The facility will support credit enhancements of project bonds to address one of India's key development challenges, namely to meet the infrastructure investment target of about $1 trillion during the Twelfth Five-Year Plan for FY2012–FY2016.[2] The longstanding method of financing Indian infrastructure projects almost exclusively through loans from banks is no longer sustainable. The banks do not have resources large enough to meet all the country's projected infrastructure financing needs and are also fast approaching their allowed sector exposure limits to infrastructure and their allowed group exposure limits to major infrastructure developers. Planning Commission (footnote 2) is projecting a potential debt financing shortfall of $350 billion in infrastructure investment over the plan. This deficit could be addressed by tapping into India's large resource pool of insurance and pension funds through bond markets. However, these funds have not been utilized for financing infrastructure; a chief constraint being that the statutory requirements require that these funds invest only in assets rated AA or above. However, infrastructure assets are typically rated BBB– to A, at best. The proposed facility by providing credit enhancement will raise the credit rating of infrastructure project bonds to the required AA rating, thereby providing the critical missing step required to mobilize infrastructure financing from pension and insurance funds and promote development of the domestic corporate debt market.

3. The facility has been developed in partnership with India Infrastructure Finance Company Limited (IIFCL) and it dovetails other public–private partnership (PPP) infrastructure development initiatives by the government and ADB to support PPP enablers[3] and provide long-term project finance.[4] Under the facility, IIFCL, which is a domestic AAA entity, will issue PCGs in support of infrastructure project bonds and ADB will assume a portion of the credit risk on the underlying project from IIFCL by issuing it a counter guarantee.[5] The PCGs will raise the rating of the project bonds to the AA level, which will enable domestic institutional investors to invest in the credit enhanced bonds.[6] In addition to IIFCL, ADB will seek to partner with other eligible domestic financial institutions, namely participating financial institution (PFIs). Through the facility, ADB will

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1 The design and monitoring framework is provided in Appendix 1.

2 Government of India, Planning Commission. 2011. *Faster, Sustainable and More Inclusive Growth. An Approach to the Twelfth Five-Year Plan*. New Delhi.

3 ADB has provided seven PPP-related technical assistance (TA) grants to support initiatives that have included capacity development, project identification, and project development and structuring at both the state and central levels. Additional TA has also been provided for project preparation and preparing project feasibility studies.

4 ADB. 2007. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to India for India Infrastructure Project Financing Facility.* Manila (Loan 2404-IND, approved on 20 December 2007, for $500 million); ADB. 2009. *Report and Recommendation of the President to the Board of Directors on India Infrastructure Project Financing Facility.* Manila (Loan 0037-IND, approved on 20 December 2009, for $700 million).

5 IIFCL is a well established player in the Indian infrastructure financing space and is fully owned by the government. It is also specifically mandated to provide long-term financing for PPP infrastructure projects and also develop innovative financing instruments and in particular, promote and develop a credit enhancement product for infrastructure financing.

6 TA has demonstrated the commercial viability of PCGs in India. ADB. 2007. *Technical Assistance to India for Capacity Development for India Infrastructure Finance Company Limited.* Manila (TA 7030-IND, approved on 14 December, for $500,000).

act as a catalyst by seeding and participating in the first few pilot credit enhancement transactions so as to provide proof to the concept and give the market necessary confidence for a new and innovative product. After the first successful pilot demonstration transactions, and as IIFCL and other PFIs develop the necessary capacity to provide credit enhancement on their own, the comfort of ADB's risk participation and involvement will be less relevant and ADB can gradually disengage from participating in the transactions.

a. Infrastructure Financing Issues

4. **Commercial banks.** PPP infrastructure projects in India depend on bank loans for over 80% of their debt.[7] The Reserve Bank of India (RBI) has indicated with concern that the annual growth rate of bank exposure to infrastructure was around 40% in FY2010.[8] While the growth in exposure has moderated more recently to around 10%, with the current exposure standing around $100 billion to the infrastructure sector, banks are fast approaching sector exposure limits. With country's private sector debt requirements at around $350 billion for infrastructure, meeting this financing need will require banks to significantly expand their infrastructure portfolios in an environment where they face severe constraints. First, the banks have already reached close to maximum sector exposure limit of 15%.[9] Second, financing long-term infrastructure loans increase the asset-liability management (ALM) mismatches in banks, due to their funding coming largely from short-term deposit base, which is a potential source of macroeconomic vulnerability.[10] Third, the structural mismatch in tenor is passed on to the borrower in the form of loan rates being reset every 1–3 years, carrying a potential increased financing cost which the borrower cannot always pass on, which increases project risk and in turn can result in credit risk for banks. Taken as a whole, these factors strongly suggest that infrastructure projects cannot rely exclusively on bank loans and need alternate sources of capital.

5. **Insurance funds.** Insurance companies and pension and provident funds with investment funds of around $190 billion and around $80 billion respectively in FY2011 are ideal sources of long-term funds for the infrastructure sector.[11] Under the norms prescribed by the Insurance Regulatory and Development Authority (IRDA) of India, insurance funds should invest 15% of their controlled funds in infrastructure and social sectors. However, the flow of credit from insurance funds to infrastructure has been only around 7%–9% in the case of life insurance companies, and while larger in the case of non-life insurers, there is almost no flow of funds into actual projects.[12] However, the insurance industry penetration in India was only around 5% in FY2010, and with premiums growing rapidly (at around 11% in FY2011 and 23% in FY2010), there is an immense opportunity for the industry to expand outreach and generate resources which can be invested in infrastructure. A critical factor for the shortfall in investment lies in IRDA guidelines that require a minimum domestic AA rating, from domestic rating agencies, for investment assets before they can qualify for such investment.[13] Infrastructure projects are characterized by nonrecourse or

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[7] Banks refer to scheduled commercial banks, which are those banks which have been included in the Second Schedule of RBI Act, 1934. These banks satisfy the criteria laid down in section 42 (6) (a) of the RBI Act. Non-scheduled banks are mostly cooperative banks that are not active in infrastructure.

[8] RBI. 2010. *Financial Stability Report*. Mumbai.

[9] RBI. 2011. *Report on Trend and Progress of Banking in India 2010–2011*. Mumbai.

[10] RBI data indicates that, the ALM positive gap (positive differential in the tenors of assets over liabilities) in >5-year bucket constituted 42% of the total ALM positive gap, followed by 3–5 years (31%) and 1–3 years (27%).

[11] Insurance Regulatory and Development Authority. 2011. *Annual Report.* Hyderabad.

[12] Even though these funds were invested in the broad infrastructure sector, they were largely absorbed by dedicated infrastructure finance companies through bonds issued at the corporate level, with little if any going into direct project finance.

[13] This is a requirement of the IRDA (Investment) Regulations (Amendment), 2001. As per IRDA, the investment assets shall be of a grade not less than AA based on their current rating. When investments with AA ratings are not available, an investment committee may, for reasons recorded in investment committee minutes, approve investments with ratings of not less than A+, with A+ investments kept to the minimum.

limited recourse financing and present multiple financing risks. During construction, risks relate to construction, land acquisition, financing and cost escalations, and enforcement of property rights. Due to these risks, projects at inception typically get a low credit rating in the BBB- category. Even after commercial operations begin, (defined as commercial operation date [COD]), ratings may typically go up to BBB+ or A, at best, as demand, off taker and regulatory risk remain. Thus, insurance funds are unable to meet investment goals in infrastructure due to non-availability of sufficiently rated assets.[14]

6. The above circumstances strongly suggest the importance of developing the project bond market by establishing a credit enhancement product to improve infrastructure project bond credit ratings, and create an investable asset class for insurance and pension funds. The funds raised through this mechanism will be used to prepay bank debt before its scheduled maturity and thus free up bank resources to lend to new greenfield projects. India's banks have enough project finance experience and risk appetite to take on greenfield project risk. Prepayment of bank debt through bond issuances by projects that have completed 2 years of operations post COD, implies that banks will only have around 4 years of exposure to the projects (2 years of construction and 2 years of operation) which is more in line with their liability profile in terms of short-term bank deposits. This will mitigate their overall ALM imbalances. For their part, long-term investors such as insurance companies and pension funds that invest in the credit-enhanced bonds will take on exposure to the projects through long-term bonds that match their long-term liabilities. Further, as these bonds would be less risky, they could have greater liquidity and may be traded. Issuers will look to refinance bank loans at lower rates when construction risks disappear. The projects will also benefit from greater interest rate certainty. While banks lend at floating rates linked to the interest rate cycle, bonds carry a fixed-rate making funding costs predictable.

b. Policy Dialogue

7. The facility is based on almost 2 years of comprehensive policy dialogue with IIFCL, the Ministry of Finance, the Planning Commission, the RBI, investment banks, institutional investors, and project developers.[15] The results of this dialogue, which built stakeholder consensus, have been (i) periodic recapitalization of IIFCL by the government; (ii) Cabinet approval to declare IIFCL a nonbank finance company and bring it under RBI supervision; (iii) approval of IIFCL's PCG scheme for pilot transactions by IIFCL's board; (iv) government approval for IIFCL to undertake pilot PCG transactions for over $700 million, leading to the formal launch of IIFCL's credit enhancement scheme by the finance minister on 5 January 2012; (v) capacity development on project credit appraisal and due diligence within IIFCL to enable it to undertake PCG transactions; and (vi) drafting of a memorandum of understanding between IIFCL and insurance companies for the latter to absorb credit-enhanced bonds. The dialogue was sustained by ADB's Capacity Development TA for IIFCL[16] which also provided guidance on guarantee structuring and indicated that a first-loss PCG was particularly suitable.[17]

2. Design

8. The figure illustrates the structure of the PCGs expected to be issued under the facility.

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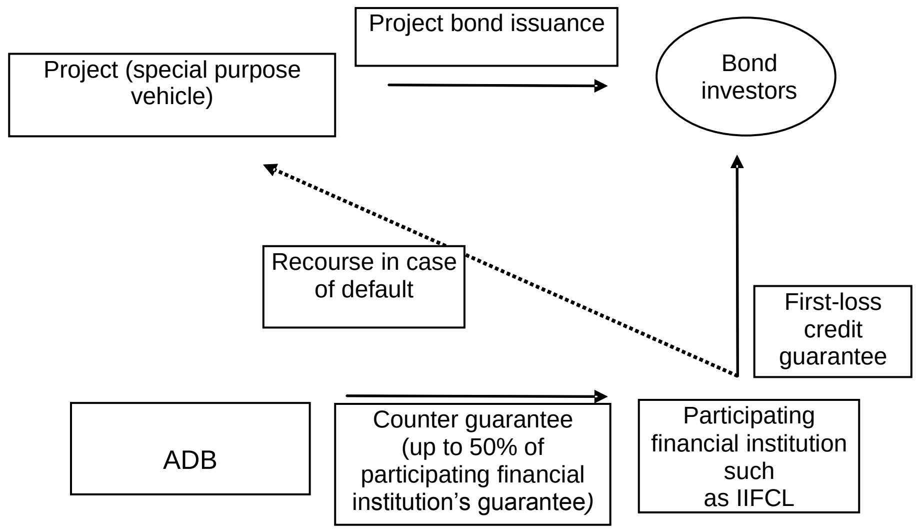
[14] Sector Overview (accessible from the list of linked documents in Appendix 2).

[15] IIFCL is a large client of ADB, having received loans for $1.2 billion under two multitranche financial facilities to support long-term debt financing for infrastructure projects (footnote 4).

[16] Attached to ADB. 2007. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to India for India Infrastructure Project Financing Facility.* Manila (Loan 2404-IND, approved on 20 December, for $500 million).

[17] A first-loss PCG covers the entire bond service obligation on interest payment dates, covering interest and principal payments up to a maximum cap amount, rather than partially covering a portion of debt service to bondholders.

Structure of Partial Credit Guarantees under the Facility



ADB = Asian Development Bank, IIFCL = India Infrastructure Finance Company Limited.
Source: Asian Development Bank.

9. **Structure of partial credit guarantees.** The PCGs under the facility will involve the following main steps. First, a special purpose vehicle (SPV) operating an eligible infrastructure project will issue a project bond. Second, an eligible PFI will enhance the credit of the project bond to AA level by providing a "first loss" guarantee. Third, ADB will provide a counter guarantee to the PFI for up to 50% of the exposure assumed by it under the first loss guarantee. In an enforcement situation, the PFI will have access to the security of the underlying project assets, the proceeds of which will be shared with ADB on a pro rata basis. ADB will not have recourse to the sovereign or the PFI in the event of default by the SPV on the bond obligations. ADB's guarantee fee will depend on the underlying project risk and guarantee structure. The first loss structure has been developed with guidance from rating agencies and is the most efficient way to lower the probability of default to bond holders and uplift credit of the underlying bonds. It essentially acts as a credit buffer to bondholders and is attractive to ADB as it leverages scarce ADB resources. A small amount of first loss guarantee for payments to bondholders (typically in the range of 20%–50% of the outstanding principal)—of which ADB will take only up to half—can raise a bond's rating to the needed AA level. This is a better use of resources than a full credit wrap covering 100% of the amount of the bonds.[18]

10. A critical aspect of ADB's development objective under the facility is the creation of a template for replicating similar first-loss guarantees by IIFCL and other PFIs. ADB and the relevant PFIs will jointly (i) select projects to be supported under the facility, (ii) conduct due diligence of the projects, and (iii) price and structure the credit enhancement of the project. The pilot transactions will develop precedents for project documentation, bond documentation, guarantees, due diligence requirements, pricing analysis, and implementation arrangements. The objective is to enable ADB's counterparties to provide credit enhancement products on their own after ADB withdraws.

[18] A technical note on the first-loss guarantee to provide meaningful credit enhancement is provided in Guarantee Structure and Sizing (accessible from the list of linked documents in Appendix 2).

B. Development Impact, Outcome, and Outputs

1. Impact

11. The impact will be the expansion of the debt market in India for infrastructure finance and products beyond bank loans. The facility will promote the diversification of infrastructure financing sources and support development of the bond market, complementing initiatives taken by RBI and the government.[19] Specifically, the facility will bring new lenders into infrastructure project financing, including insurance and pension funds, thereby diversifying funding options for these projects. Fixed rate bonds will replace floating rate SCB loans[20] that have periodic interest rate resets, thereby reducing project risk.

2. Outcome

12. The outcome of the facility will be the demonstration of a commercially viable and replicable model for undertaking credit enhancement of infrastructure project bonds in India. Risk-based pricing of the guarantee facility will set market benchmarks and result in efficient price discovery and sustainability. It will also lead to the matching of long-dated infrastructure assets with long-dated insurance and pension fund liabilities. While the bonds under the first demonstration transaction will be privately placed, the possibility of public bond placement will be explored for transactions that follow under the facility. The pilot transactions will demonstrate the viability of the PCG product in the infrastructure bond market and the precedents developed in the pilot phase will facilitate the rolling out of the credit enhancement product in an effective manner. Successful pilot transactions will in particular (i) enable IIFCL to mainstream credit enhancement as a new product and develop internal capacity by absorbing best practices through the partnership with ADB in the pilot phase, (ii) encourage other interested PFIs to follow the IIFCL example once commercial viability has been established and offer the product, and (iii) demonstrate the applicability of the product across subsectors.

3. Output

13. The output will be 3–5 pilot infrastructure credit-enhanced AA rated infrastructure project bonds (termed as projects under the facility) launched by IIFCL and other PFIs. The facility will seek to support bonds issued from a cross section of infrastructure subsectors and by different project developers.

C. Alignment with ADB Strategy and Operations

14. **Strategy 2020.** The facility is designed to develop the local currency debt market to fund infrastructure and is aligned with ADB's Strategy 2020.[21] The facility supports two of ADB's five core areas of operation under Strategy 2020—infrastructure and financial sector development. The

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[19] Bond market development strategy rests on (i) regulatory and policy reforms, (ii) institution building, (iii) upgrading of trading and settlement systems, (iv) strengthening of disclosure norms, and (v) expanding the set of investable instruments and investors. The facility targets the final aspect and is being undertaken in concert with other government and RBI interventions to address the remaining aspects. Specific initiatives include (i) allowing domestic financial intermediaries greater leeway to invest in corporate bonds, (ii) raising the limit on foreign investment in corporate bonds, (iii) amending the bankruptcy code to protect rights of unsecured creditors, (iv) reducing transaction costs in issuing and trading corporate bonds by reducing the need for repeated disclosures and lowering high stamp duties, and (v) reducing the preference of banks for loans over bonds by subjecting both assets to similar mark-to-market requirements.

[20] The prepayment of bank loans with bond proceeds will free up capital that may be recycled by banks to lend to greenfield projects and help reduce the mismatch between the banks' long-term assets and short-term deposits.

[21] ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020.* Manila.

facility is consistent with a key Strategy 2020 goal of increasing cofinancing and optimizing use of capital, by leveraging market resources.

15. **Country partnership strategy.** ADB's India country partnership strategy for 2009–2012 emphasizes infrastructure development and is based on four pillars: (i) inclusive and environmentally sustainable growth, (ii) catalyzing investment, (iii) increasing results orientation and knowledge solutions, and (iv) regional cooperation. The facility supports the first three pillars, given the linkage between growth and infrastructure development and the objective of catalyzing infrastructure funds from a broad array of financial intermediaries. The country partnership strategy supports the role of financial intermediaries in providing long-term financing for infrastructure, emphasizing the PPP modality. [22]

D. Lessons Learned

16. The facility design has recognized lessons learned from the 2008 global financial crisis. Monoline insurers in the United States and Europe experienced problems because they insured complex securities created by packaging mortgages, including subprime ones, and thereby departed from their traditional infrastructure business, which had steady and predictable cash flows. While these activities were lucrative in the short run, the insurers did not understand how risky the underlying assets really were. The PFIs under the facility will focus on their core business of providing PCGs to bonds issued by infrastructure SPVs and not diversify into unrelated areas.

E. Implementation Arrangements

17. The facility will be available for 3 years after ADB Board of Directors approval and is expected to support 3–5 projects. ADB's guarantee will not exceed 50% of the PFIs' exposure in the underlying SPVs. The approval of eligible PFI and projects, as well as extent of partnership with PFIs and exposure to projects under the facility, will be delegated to ADB's investment committee on a case by case basis and will take into account overall objectives of the facility and prevailing market conditions. The PFI will (i) have a domestic AAA rating from all major domestic rating agencies, (ii) obtain necessary clearances from the government and regulators, (iii) be in compliance with applicable ADB and national safeguard and integrity policies, and (iv) have an established track record in financing infrastructure in India. The projects under the facility will be expected to have (i) a minimum stand-alone bond rating without credit enhancement of BBB+, and (ii) completed at least 2 years of commercial operation. ADB and the PFI will jointly undertake project selection, guarantee structuring, investor dialogue, and legal, financial, and credit due diligence.[23]

III. THE PROPOSED ADB ASSISTANCE

A. The Assistance

18. The facility will provide for ADB to issue PCGs in an aggregate amount of up to Rs7,168 million, including interest in favor of PFIs providing credit enhancement for infrastructure project bonds. When a PFI provides a PCG to the holder(s) of a project bond, ADB will in turn take up to 50% of the PFI's credit risk by issuing it a counter guarantee. The project bonds will be denominated in Indian rupees, as will be the underlying guarantees.

[22] ADB. 2009. *Country Partnership Strategy: India, 2009–2012.* Manila.
[23] Details of Implementation Arrangements (accessible from the list of linked documents in Appendix 2).

B. Value Added by ADB Assistance

19. ADB's value addition consists of knowledge transfer and the assumption of a portion of the risks in the issuing of infrastructure project bonds:

(i) The pilot transactions will mark a first in India's bond market and demonstrate a product that can meet a key development priority by (a) diversifying infrastructure financing sources, (b) bridging the gap between the ratings of projects in need of finance and the rating requirements of long-term financing sources such as insurance and pension funds, (c) reducing dependence on banks for infrastructure financing and supporting development of the local debt market, and (d) replacing existing floating rate bank financing with long-term fixed-rate financing through the bond market and thereby reducing project risk.

(ii) While IIFCL and other potential PFIs have the credit ratings needed to undertake PCG transactions, their ability to launch a new product is unproven. ADB's involvement through its assumption of part of the project risk through the joint execution of the pilot transactions will be critical in providing credibility to the transactions and building market confidence.

(iii) Partnering with ADB will enhance the capacity of IIFCL and other PFIs in credit and legal due diligence and guarantee structuring. ADB inputs on due diligence and pricing will be needed for the pilots to be implemented and to support the mainstreaming of the PCG product in India. This approach is preferable to ADB doing stand-alone, nonreplicable transactions.

(iv) Lessons from the PCG pilots may be considered by the government during policy reviews and may inform parallel initiatives to mainstream the credit enhancement product. These lessons may provide guidance on (a) whether the IRDA's AA rating threshold can be lowered to facilitate bond issues, (b) potential initiatives to reduce transactions costs in issuing bonds, and (c) possible impediments to bond financing in concession agreements that need to be addressed.

C. First Pilot Transaction

20. A first pilot project under the facility is in advanced stage of preparation. Under this transaction, IIFCL will enhance the credit rating of a bond to be issued by GMR Jadcherla Expressways Private Limited (GJEPL), which was incorporated in October 2005 as a SPV owned by GMR Group of Companies namely GMR Infrastructure, GMR Highways, and GMR Energy.[24] The SPV was awarded a 20-year concession through competitive bidding by the National Highways Authority of India in February 2006 to design, engineer, construct, operate, maintain, and expand into four lanes the existing two-lane section of National Highway 7 from Farukhnagar to Jadcherla and to improve, operate, and maintain the four-lane stretch of the highway from Thondapalli to Farukhnagar on a build-operate-transfer basis.[25] The toll expressway began operations in February 2009. The project cost of Rs5.2 billion ($92.2 million) was financed by a SCB loan of Rs3.5 billion ($62 million), equity of Rs1.2 billion ($21.2 million), and mezzanine

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[24] GMR Group was founded over 30 years ago with interests in energy, airports, roads, and urban infrastructure. GMR Group is listed both on the Mumbai and National stock exchanges. As of 31 March 2011, the group had a portfolio of 16 power, 4 airport, and 9 road projects (annuity projects totaling 1,198 lane km and toll projects totaling 2,150 lane km). In FY2011, GMR Group had consolidated net revenues of Rs60.85 billion ($1.1 billion) and earnings before interest, tax, depreciation, and amortization of Rs18.68 billion ($331.3 million).

[25] Although this project involves a toll highway, subsequent projects may also include annuity projects. Annuity concessions are a variant of the build-operate-transfer model in which the private operator is remunerated via a fixed, periodic payment (annuity) from the National Highways Authority of India rather than through tolls. Under these contracts, the private operator is responsible for construction, operation, and maintenance for a fixed period.

capital of Rs0.5 billion ($8.8 million). GJEPL will prepay the entire existing loan through a proposed 12.5-year bond issue.

21. **Guarantee structure.** IIFCL will guarantee the payment of the outstanding principal and interest of the bond in Indian rupees which translates up to 28% of the outstanding principal.[26] IIFCL's partial guarantee will raise the proposed bond's stand-alone domestic credit rating of A without credit enhancement to AA. In its turn, ADB will issue a guarantee to IIFCL for 50% (ADB's portion) of IIFCL's exposure under its own guarantee, thereby sharing the risk with respect to the underlying project.[27] IIFCL's PCG (and therefore also ADB's) will be a first-loss guarantee (footnote 17). After IIFCL has paid its obligations under the guarantee, it will have recourse to the project assets, subject to applicable waterfall provisions, and must share any recoveries with ADB (proportionate to the actual payments made by each under their respective PCGs). As PCGs are new to IIFCL, its capacity will be augmented by ADB support. Concurrently, IIFCL will continue its capacity building activities in credit appraisal, human resources and skills, organizational restructuring, and system and software upgrades. Under the first transaction, ADB will share 50% of the underlying project risk for the first 5 years only and IIFCL will take full exposure for the residual bond period. Any extension will require ADB approval.

22. **Project financials and risk assessment.** The project tollway links Hyderabad and Bangalore, both state capitals and major cities, with several industries located along its route. The financing agreements for the project were signed on 18 August 2006 and commercial operation began on 12 February 2009. A conservative sensitizing of the financial model provided by the sponsor indicated that the project is expected to have robust cash flows and adequate debt service coverage ratio. Under base case scenarios, GJEPL is financially viable and the expected financial internal rate of return at 14%, which exceeds the weighted average cost of capital of 10.8%.[28]

D. Risks and Mitigations

23. Credit enhancement is new to India and its success and viability depends on several factors, including supply and demand of the product which cannot be currently determined. However, ADB's credit risk depends on its exposure to individual projects under the facility. The key general risks are as follows:

(i) **Product sustainability.** A risk of poor product sustainability will arise if the economics of the transaction are not viable for the issuer, bondholders, or the credit enhancers. The sustainability of the program will be at risk if PFIs and ADB cannot achieve adequate pricing for the credit enhancements provided. Other risk factors include high long-term bond interest rates, availability of low cost bank financing and inability of the PFI to carry out transactions on their own once pilot transactions are completed and ADB withdraws. This risk will be mitigated to some extent by the pricing of the transaction, which will take market benchmarks and risk-based pricing into account, by selecting PFIs that have experience in infrastructure financing, and by improving the technical capacity of these PFIs when necessary. Nonetheless, this is a new product and its long-term viability has not been tested in India.

(ii) **Counterparty risk to participating financial institution.** ADB does not take any credit risk on the PFI and is ultimately exposed to underlying project risk. There could be some settlement risk with the PFI, but this is expected to be minimal given

[26] ICRA Ratings Limited provided a guidance of 24% as the extent of coverage required to enhance the rating of the stand-alone A rating to AA. A number of 28% has been indicated as the outside range of the extent of coverage needed. An overview of the structure and mechanics of guarantee cover is provided in Guarantee Structure and Sizing (accessible from the list of linked documents in Appendix 2).

[27] ADB's maximum aggregate liability under its guarantee for the first pilot transaction will be up to Rs448 million.

[28] Financial Analysis, and Economic Analysis (accessible from the list of linked documents in Appendix 2).

the AAA domestic credit rating of the PFI. Notwithstanding, it is crucial for PFIs to have a minimum level of technical skills to identify projects in line with the selection criteria. In addition, the PFI could select weak projects and incorrectly price risk but this will be mitigated because ADB will select projects, price risk, and undertake project level due diligence along with the PFI. With respect to the first PFI, there are some issues on the choice of IIFCL due to concerns in its ability to undertake independent project assessment. However, this risk is mitigated by the ongoing capacity building technical assistance provided by the World Bank and government support to IIFCL to promote credit enhancement products for infrastructure.

(iii) **Project risk.** The following are expected to be key risks of the underlying eligible projects: demand risk, off-take risk, operation and maintenance risk, sponsor risk, tariff risk, and concessionaire risk. These risks will be partially mitigated by choosing transactions with a minimum BBB+ credit rating from local rating agencies, good sponsors, and projects that have been completed 2 years of operations. However, risks may vary by individual project and will need to be examined in detail and addressed on a case-to-case basis. For the first SPV GJEPL, the project is primarily exposed to risks related to traffic volatility in its concession area and tariff escalation, which is compensated by the lack of completion risk and minimal operation and maintenance risk due to the straightforward operations of the toll road.

(iv) **Regulatory risk.** ADB has carried out due diligence to assess the legal and regulatory risks to the first pilot transaction. The enabling legislative and regulatory basis for ADB and PFIs to enter transactions has been examined, as have the approvals needed from the government and RBI. This project, like all others, is exposed to regulatory risks but is strongly supported by the government given its alignment with initiatives to develop India's bond market.

IV. POLICY COMPLIANCE

A. Safeguards and Social Dimensions

24. The facility is classified as category FI with respect to ADB's environment, involuntary resettlement, and indigenous peoples' policies, and will comply with the applicable requirements of ADB's Safeguard Policy Statement (2009). A compliance audit of the environmental and social safeguards performance of the national highway operated and maintained by GJEPL was conducted by IIFCL and provided to ADB for clearance. The audit revealed that the project is in compliance with ADB's and national safeguard policies as provided in IIFCL's environmental and social safeguards framework (ESSF) requirements.[29] With respect to the GJEPL transaction, the audit requirement and monitoring and due diligence by IIFCL is integrated into IIFCL's ESSF. The audit revealed that GJEPL needed to adopt an emergency preparedness and response plan, which was then developed. The audit report, the operational phase environment management plan, including the emergency preparedness and response plan and other measures to be implemented by GJEPL and monitored by ADB and IIFCL, are available on ADB's website.[30]

25. Finally, GJEPL or any other client will comply with ADB's Social Protection Strategy and report on the compliance (including contractors) with national labor laws and/or adherence to internationally recognized core labor standards. Information disclosure and consultations with

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[29] IIFCL's ESSF can be accessed from http://www.iifcl.org/Content/ESMU.aspx and the Environmental and Social Safeguards Summary (accessible from the list of linked documents in Appendix 2).

[30] IIFCL has sufficient capacity to ensure project compliance with the requirements of the ESSF. It established an environmental and social management unit in February 2010 and has five staff positions for a head of unit, two environment specialists, and two social safeguard specialists. A review of IIFCL's ESSF, including a 2010 audit of ADB-supported IIFCL projects, revealed overall compliance with the ESSF requirements.

affected people are conducted in accordance with ADB requirements and the ESSF of the PFI will monitor compliance with core labor standards and applicable national labor laws and regulations.

26. ADB will require other PFIs it considers partnering with under the facility to establish an ESSF consistent with IIFCL's ESSF and ADB safeguard requirements before finalizing a risk participation arrangement. Given that projects eligible under this facility should have been in commercial operation for at least 2 years, an environmental and social compliance audit, including an on-site assessment, will be conducted by the project sponsor[31] to determine whether relevant actions were in accordance with the requirements prescribed by ADB's and national safeguard policies.[32] In case of outstanding compliance issues, a corrective action plan agreed to by ADB and the PFI and the project sponsor will be prepared and disclosed on ADB's website.

B. Anticorruption Policy

27. IIFCL, the issuer, and GMR Group were advised of ADB's Anticorruption Policy (1998, as amended to date) and its policy of implementing best international practice relating to combating corruption, money laundering, and the financing of terrorism. ADB will ensure that the investment documentation includes appropriate provisions prohibiting corruption, money laundering, and the financing of terrorism, and remedies for ADB in the event of noncompliance. Future eligible financial institutions, issuers, and their sponsors will be advised of the same.

C. Investment Limitations

28. The proposed PCG is within the country, industry, group, and single-project exposure limits for nonsovereign investments.

D. Assurances

29. Consistent with the Agreement Establishing the Asian Development Bank (the Charter),[33] the Government of India has confirmed that it has no objection to the proposed assistance to IIFCL, and will be requested to confirm that it has no objection to the proposed assistance to other PFIs when this becomes relevant. ADB will enter into suitable finance documentation, in form and substance satisfactory to ADB, following approval of the proposed assistance.

V. RECOMMENDATION

30. I am satisfied that the proposed guarantee facility would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the guarantee facility for ADB to issue partial credit guarantees without government counter guarantee, in amounts, in aggregate, of up to Rs7,168,000,000 Indian Rupees from ADB's ordinary capital resources, in favor of eligible Indian financial institutions providing credit enhancement for infrastructure project bonds in India, with such terms and conditions as are substantially in accordance with those set forth in this report, and as may be reported to the Board.

Haruhiko Kuroda
President

30 August 2012

[31] In most cases, it is expected that the project proponent will conduct the audit. Alternatively, if the issues expected are relatively minor and the scope of the audit relatively small, the PFI and ADB will conduct the audit.
[32] In the case of the first project, the GJEPL, the audit was conducted in accordance with IIFCL's ESSF.
[33] ADB. 1966. *Agreement Establishing the Asian Development Bank.* Manila.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact The debt market for infrastructure finance and products in India expanded beyond banks loans	The size of the debt market increased to $1 trillion by FY2016 FY2011 baseline: $750 billion Insurance funds deploy >10-12% of their investment funds in infrastructure sector by FY2016. Pension funds deploy >2-3% of their investment funds in infrastructure sector by FY2016. FY2011 baseline: insurance funds, 7%–9%; pension funds, <1% More than 40 credit-enhanced AA rated infrastructure project. bonds issued by FY2020 FY2012 baseline: Zero	ASSOCHAM annual reports Government of India annual economic survey and RBI data on corporate debt market RBI data published in (i) annual report, (ii) trends and progress in banking, and (iii) financial stability report Insurance Regulatory and Development Authority annual reports	**Assumptions** A sufficient number of potential project developers are interested in issuing project bonds. A sufficient number of potential investors are willing to fully absorb the bond issues. **Risk** Investors may be reluctant to choose project SPV bonds over other investment opportunities.
Outcome A commercially viable credit-enhancement product for infrastructure project bonds established in India's financial market	Credit enhancement products mainstreamed in the project debt market by IIFCL and other eligible financial institutions by FY2015 Baseline: no credit-enhancement product exists	IIFCL annual reports and annual reports of other eligible financial institutions Annual reports of investment banks and lead arrangers	**Assumptions** The exposure of banks to the infrastructure sector remains high. The number of infrastructure projects with a minimum credit rating on a stand-alone basis of BBB+ is great enough to allow for commercial viability of PCG transactions. **Risk** An increase in interest rates makes it unattractive for issuers to issue bonds.

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Output Pilot infrastructure credit-enhanced bonds launched by IIFCL and other eligible financial institutions	Risk participation agreements for at least two subsequent infrastructure project bonds in different subsectors executed between ADB and IIFCL by FY2015 At least one additional infrastructure project bond in a different subsector(s) successfully placed with investors in the market by other PFIs under the ADB facility by FY2015. FY2012 baseline: no infrastructure project bonds exist	Annual reports and audited financial statements of IIFCL and other eligible financial institutions	**Assumptions** Bonds and PCGs can be issued in compliance with the relevant concession agreement and applicable regulations. At least 2–3 insurance companies and pension funds are interested in investing in the pilot project bonds. **Risk** Financial institutions other than IIFCL are not interested in providing credit enhancement.

Activities with Milestones	Inputs
1. First Sample Transaction 1.1 Achieve financial close of first sample transaction by December 2012 **2. Issuance of further 2–4 project bonds with eligible partner financial institutions** 2.1 Achieve financial close of second transaction with eligible financial institution by third quarter 2013 2.2 Achieve financial close of the remaining transactions with eligible financial institution by 2015	ADB: partial credit guarantee of Rs448 million for first sample transaction IIFCL: partial credit guarantee of Rs448 million for first sample transaction ADB: partial credit guarantee of Rs6,720 million to be distributed between 2–4 other subsequent projects IIFCL or other partner financial institutions: partial credit guarantee of Rs6,720 million to be distributed between 2–4 other subsequent projects

ADB = Asian Development Bank, ASSOCHAM = Associated Chambers of Commerce and Industry, IIFCL = India Infrastructure Company Limited, PCG = partial credit guarantee, PFI = participating financial intermediary, RBI = Reserve Bank of India, SPV = special purpose vehicle.

[a] Infrastructure subsectors such as roads, power, and airports.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

http://www.adb.org/Documents/RRPs/?id=43932-01-4

1. Sector Overview
2. Details of Implementation Arrangements
3. Financial Analysis
4. Economic Analysis
5. Country Economic Indicators
6. Summary Poverty Reduction and Social Strategy

Supplementary Documents

7. Environmental and Social Safeguards Summary
8. Environmental and Social Audit Report
9. Credit Ratings of Select Infrastructure Projects/Special Purpose Vehicles
10. Guarantee Structure and Sizing