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(Secretariat for the Committee on Infrastructure)

Concession for the Delhi Noida Bridge

*Sheoli Pargal**

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This case study should not be reported as representing the views of the Planning Commission.
The views expressed in this case study are those of the author and do not necessarily represent the views of the Planning Commission. This study is being published as part of a larger effort in the Planning Commission to identify and disseminate best practices and highlight areas for improvement in the design of concession contracts for PPPs and the process for awarding them.

The need to follow good practice in both contract design and the process of awarding contracts, and the potential pitfalls of not doing so, are illustrated by this review of the concession for the Delhi Noida toll bridge project awarded in 1997. The contract does not give the Authority a role in assessing the reasonableness of capital and operational costs reported by the concessionaire. It also provides for guaranteed annual returns of 20% on the total project costs, and not on equity alone. Shortfalls in returns for previous years result in a corresponding increase in project cost, on which further returns are payable. As a result, the initial capital cost of Rs. 408 crore, as determined by the concessionaire, had risen to Rs. 953 crore as on March 31, 2006. Also, since the contract provides for the term of the concession to be extended until the concessionaire recovers the total cost of the project and returns thereon, the concessionaire has noted that it is now entitled to hold the concession for a period of 70 years as against the 30 years initially contemplated in the agreement. In addition, the concessionaire has received 'in-principle' approval for development rights over 30.5 acres of prime urban land in Noida, as a supplementary source of returns. In view of these outcomes, the paper concludes that if concessions are to serve the public interest, it is vital to ensure a robust contract design that relies on open competitive bidding and elimination of conflicts of interest.

Introduction

1. The Delhi Noida bridge is one of three bridges across the Yamuna river connecting Noida with Delhi and the only one that is tolled. Popularly known as

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the DND Flyway, the bridge is 552.5 meters long and includes the approach roads on the Delhi and Noida ends. It has eight lanes with a capacity of around 222,000 vehicles per day. The main advantage of using the bridge is the savings in time, distance and fuel consumption for travelers between South Delhi and Noida.

2. The bridge, which opened to traffic in February 2001, was among the first few projects to have been developed as a Public Private Partnership (PPP) in India. The project was structured as a Rs. 408.2 crore (US$ 100m)[1] 30-year BOOT concession, which was financed through equity of Rs. 122.4 crore (US$ 30m) and debt of Rs. 285.8 crore (US$ 70m). Debt financing consisted of term loans from various Indian banks and financial institutions totaling Rs. 235.8 crore (US$ 58m) and the issue of deep discount bonds totaling Rs. 50 crore (US$ 12m) by the Noida Toll Bridge Company Limited (the concessionaire).

3. The Delhi Noida bridge project is often presented as a path-breaking project which showed that private capital could indeed be attracted to provide public infrastructure services in India – despite having to deal with multiple authorities and a fragile political environment. The project was completed within budget and ahead of schedule.[2] It was also successful in raising investment funds from capital markets (including an issue of GDRs overseas). Following significant shortfalls in projected traffic and revenues, it was also successful in restructuring its debt after the first year of operation.[3] It is the only toll road in the country listed on the stock exchange.[4]

4. However, there is a sense that the terms of the concession agreement for the Delhi Noida bridge project may have been unduly favorable to the private partner

[1] For purposes of exposition, Indian rupee amounts have been converted to US$ at an exchange rate of Rs. 40.8/US$ in this note.
[2] See the company's AIM Admission Document, available on its website at: http://www.ntbcl.com/files/AIM_Admission_Document.pdf and the Annual Report of the NTBCL for the financial year 2005-2006, available at http://www.ntbcl.com/files/Annual_Report_NTBCL-05-06-Final.pdf.
[3] According to "Noida Toll Bridge Company Limited – Financial Restructuring," a case prepared by Prof. Sidharth Sinha, IIM, Ahmedabad for classroom discussion, the project was able to achieve only 37% of projected traffic and 28% of projected revenues in 2002-03.
[4] Quoted at Rs. 27.60 per share of face value Rs. 10 on August 10, 2007 (BSE); 52 week high Rs. 51.45 and low Rs. 22.15. See http://www.moneycontrol.com/stocks/cptmarket/pricechart.php?sc_did=NTB.

and that there was room for improvement in the process followed in project structuring and contract award. As the Government moves towards greater use of PPPs in infrastructure, it behooves concession awarding authorities to become aware of the complexities of such arrangements and the potential liabilities they may incur if the contract design and the contract award process do not follow good practices.

5. This review was undertaken to explore the Agreement for Delhi-Noida bridge project from a public policy perspective and elicit lessons to inform concession design going forward. The review relies on the Concession Agreement for the project and documents publicly available on the concessionaire's website (www.ntbcl.com). Overall, the review identifies several instances where best practice and experience would suggest a different approach and, indeed, questions whether this contract can be considered a true "partnership" in view of the limited allocation of risk to the private partner.

Background[5]

6. IL&FS, NOIDA and the Delhi Administration signed a memorandum of understanding on 7 April 1992 for the construction and operation of the Delhi Noida Toll Bridge. The memorandum of understanding recognised IL&FS as the developer of the project. Pursuant to the memorandum of understanding, a steering committee consisting of representatives of the Government of Uttar Pradesh, the Delhi Government, the Ministry of Urban Affairs and Employment, the Government of India, the Delhi Development Authority, NOIDA and IL&FS was established for monitoring the project and taking decisions relating to the development of the Delhi Noida toll bridge. The Noida Toll Bridge Company Limited (NTBCL) was incorporated on 8 April 1996, pursuant to the decision of the steering committee, for the purposes of developing, establishing, designing, constructing, operating and maintaining the Delhi Noida Toll Bridge.

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[5] This section relies heavily on the company's AIM Admission Document cited in footnote 2.

7. On 12 November 1997, a concession agreement was entered into by NOIDA, NTBCL and IL&FS granting the right of building and operating the Delhi Noida toll bridge to NTBCL. Under the concession agreement, NTBCL has been given the right to commercially exploit the Delhi Noida toll bridge by levying tolls. The concession agreement provides that the concession shall last until the concessionaire has recovered the total project cost plus a return, which is 20% per annum of the total project cost. At the end of the concession period all of the NTBCL's interest in the Delhi Noida toll bridge is to be transferred back to NOIDA for the nominal sum of Rs 1.[6]

8. In the initial years of operation, the revenue from collection of toll fees at the Delhi Noida toll bridge fell below originally projected levels and below break-even level. The shortfall was attributed to a number of factors including the rate of growth of Noida being lower than expected. As a result of the financial losses incurred, NTBCL approached its lenders for the restructuring of its debt after its first year of operation. The restructuring was carried out in 2002. The State Bank of India in conjunction with NTBCL, IDBI and IL&FS prepared the corporate debt restructuring proposal, the key features of which were: (i) rescheduling of interest and repayments; (ii) reduction in interest rate for loans; and (iii) construction of new links in order to augment NTBCL's revenues (to be funded by additional equity capital).

The concession agreement

9. The concession agreement (CA) signed between NOIDA, IL&FS, and NTBCL in 1997 for the Delhi Noida bridge project grants the concessionaire (NTBCL) the right to collect user fees to recover (a) the total cost of the project, as

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[6] Apart from the concession agreement that is the subject of this review, two other key agreements relate to the Delhi Noida toll bridge project: (1) The Government of Uttar Pradesh and the Government of Delhi entered into a support agreement dated 14 January 1998 to support and extend cooperation to NOIDA and the concessionaire company with respect to the implementation of the project. The support agreement is intended to remain in force for the same period as the concession agreement. (2) On 21 December 1998, Intertoll Netherlands and NTBCL entered into an operation and maintenance (O&M) agreement for operation, maintenance, and management of the Delhi NOIDA bridge and associated facilities and to charge and collect fees from the users of the bridge and facilities. Intertoll assigned the O&M contract to its Indian subsidiary, Intertoll India, in 2000.

well as (b) returns on the total cost of the project at a rate of 20% per annum, over the concession period[7] starting from the effective date. The return on the total cost of the project is guaranteed in that the contract provides that the concession period will be extended by NOIDA in two-year increments beyond the 30 year initial concession period[8] until such time as the total cost of the project and the returns thereon have been recovered by the concessionaire.

Key aspects of the concession agreement are discussed below.

1. Guaranteed returns on total project cost

10. The contractual provision of a *guaranteed return on the total cost of the project* has several implications. The fact that a specific percentage return has been guaranteed leads to the need to understand (a) on what base the return must be calculated and what this implies in terms of concessionaire incentives, and (b) whether the level of the return is justified. These aspects are addressed in turn.

(a) Base upon which the return is calculated

11. The concessionaire is guaranteed a return on the ***Total Cost of the Project***, which is defined as the aggregate of (i) Project Cost; (ii) Major Maintenance Expenses; and (iii) shortfalls in the recovery of Returns in a specific financial year.[9] ***Project Cost*** is further defined as, collectively, (a) the Cost of Construction and (b)

[7] "Concession Period: The Concession Period shall commence on the Effective Date and shall extend until the earlier of: (i) a period of 30 years from the Effective Date; or (ii) the date on which the Concessionaire shall recover the Total Cost of Project and the Returns as determined by the Independent Engineer and Independent Auditor in accordance with Section 14 thereon through (a) the demand, collection, retention and appropriation of Fee, (b) the receipt, retention, and appropriation of Development Income, or (c) any other method as determined by the Parties…" (Sec 1.1 of CA).

[8] "Extension of Concession Period: In the event that the Concessionaire has not recovered the Total Cost of Project and the Returns thereon on the date 30 years from the Effective Date, the Concession Period shall, without qualification, be extended by NOIDA for a period of two years at a time until the Total Cost of Project and the Returns thereon have been recovered by the Concessionaire; *provided, however*, that the Concessionaire shall not be precluded from terminating this Agreement in accordance with Article 19…" (Sec 2.4 of CA).

[9] "Returns" – returns on the Total Cost of Project, recoverable by the Concessionaire from the Effective Date at a rate of 20% per annum (Sec 1.1 of CA).

the Other Costs of Commissioning.[10] It is stated that the Independent Auditor shall, in consultation with the Independent Engineer, determine the Project Cost as on the Project Commissioning Date.

Several issues arise from these definitions:

(i) The project cost is defined *ex post* – once construction and commissioning have been completed – and the contract does not put a cap on project cost and total cost of the project.[11] This means the *magnitude of the financial commitment being made by NOIDA, and whether it is "reasonable," are not known up front.* Since the contract provides for returns on total project cost, the public interest in ensuring that only "appropriate" expenditures are incurred would have been better served if the agreement had provided for a mechanism that would allow NOIDA to undertake due diligence relating to project specifications and costs. As high costs would be borne by NOIDA and users (in the form of higher tolls, increase in concession period, and Development Rights), it would have been appropriate for NOIDA to have a say in approving the costs incurred by the concessionaire, especially the capital cost of Rs. 408 crore (US$ 100m) and its components, to ensure that they

[10] Other Costs of Commissioning means "all costs and expenses of whatever kind, as specified in the accounts maintained by the Concessionaire, NOIDA, Sponsor, Govt. of UP, and Delhi Government in the format approved by the Independent Auditor and are duly audited by the Independent Auditor, incurred in respect of the Project, prior to the Project Commissioning Date, other than the Cost of Construction, including but without being limited to: (a) cost incurred in relation to the acquisition and preparation of the land upon which the facilities shall be located {including all lease rentals payable in accordance with Section 5.1(c) and 5.1 (d)}, (b) all pre-operative expenses incurred by NOIDA, the Sponsor and the Concessionaire prior to entering into the Agreement, (c) management overheads such as corporate office expenses, salaries to staff, traveling expenses, administrative overheads, and management and legal expenses, (d) all consulting and advisory service fees incurred prior to the Project Commissioning Date, including all site investigation charges, Independent Engineer and other engineers' and architects' fees incurred in relation to the implementation of the Project, (e) expenses incurred by the Concessionaire for mobilization of financial resources, in whatever form for funding the Project, including but not limited to, brokerage, commissions, upfront discounts on debt, merchant banker's fees, legal fees, publicity and travel expense, financial advisory charges and other related charges and fees including charges and fees payable under the Financing Agreements, (f) any duties (including stamp duty payable on the Financing Agreements), taxes, levies, fees and commissions, duly grossed up, (g) other specific expenses as agreed upon and incurred by the Concessionaire, Sponsor, NOIDA, GOUP and DG under the Support Agreement or their respective agencies during implementation of the Project, (h) all costs of the insurance required to be obtained in connection with the Project prior to the Project Commissioning Date, and (i) the Management Fee (the Management Fee is 1% of the Project Cost, payable to the Sponsor (IL&FS) upon financial close)." (Sec 1.1 of CA).

[11] As an instance of good practice, the Model Concession Agreement for National Highways published by the Planning Commission defines Total Project Cost as the lowest of: (a) the capital cost of the Project as set forth in the Financial Package; (b) the actual capital cost of the Project upon completion of the Project Highway; and (c) a sum of *****. (MCA 48.1).

were "reasonable." In this regard, it should be underlined that while auditors can certify that specified expenditures have occurred, they *cannot opine upon whether these expenditures are 'reasonable.'*

(ii) The agreement does not provide a tight definition of what items are allowable as costs (see, for instance, the definition of "Other Costs of Commissioning" in footnote 10) – so costs are effectively open-ended. Given the public service nature of the project, the base upon which returns are guaranteed is unduly inflated by including the Management Fee in project cost and by including land costs, rather than having the government absorb these costs.[12]

In fact, by providing a return on the total cost of the project and not specifying exactly what is included under total cost, a *perverse incentive is created for the concessionaire* to (a) attribute whatever it can to the cost of the project and (b) over-engineer the project. Such an increase in project cost would mean that toll levels and/or the concession period would need to be adjusted upwards to permit recovery of costs (and the returns thereon) – so users could end up paying unnecessarily high tolls and for a longer period than warranted.[13] In turn, increased tolls would reduce the viability of the project by inducing traffic diversion to alternate routes and create a demand for state support through Development Rights,[14] etc., to augment toll revenues.

(iii) The total cost of the project, which qualifies for an assured return of 20% per annum, includes shortfalls in the recovery of returns in previous financial years. *In*

[12] In addition, all expenses of rehabilitation and resettlement of people in connection with the project could be paid by the concessionaire and added to project costs if requested to do so by NOIDA. (Sec 5.1 (d) of CA).

[13] "The Fee Review Committee shall take all steps to ensure that *the revenues from the Project are maintained at levels sufficient to recover the Total Cost of Project and meet the Concessionaire's Returns thereon*. When determining whether a revision to the Fee is warranted, the Fee Review Committee may consider, among other circumstances, (i) the benefits to the Users, (ii) traffic flow over the Project, (iii) any increase in any cost of expense in relation to the Project owing to the occurrence of an event under subsection (c) above, and (iv) the Concessionaire's Debt Service obligations." (Sec 13.5 (d) of CA).

[14] Development Rights means such additional rights, property and assets that are not part of and are not anticipated to be part of the Project as on the date of the project Agreement but are granted to the Concessionaire by NOIDA …for enabling the Concessionaire to generate additional revenue, and may include… provision of advertising services, right to develop hotels, restaurants and other facilities, services contracts and agreements and/or real property interests. (Sec 1.1 of CA).

other words, if the toll revenues of a given year do not generate such returns, the deficit is added to the Total Cost of Project and the enhanced Total Cost of Project forms the base for calculating the return of 20% in subsequent years.[15] *The inclusion of shortfalls in the recovery of returns in total cost of project not only substantially removes traffic risk from the concessionaire, but could be expected to result in very significant increases in the total amount due to the concessionaire.*[16] Since any deficit in returns significantly increases the total cost of the project, this can create a vicious cycle in which the shortfall in achievement of required returns and the compounding thereof results in a repeated need to lengthen the concession period and/or raise toll rates or grant Development Rights. In fact, actual revenues fell far short of projected revenues (28% of projections for the first year, as noted at footnote 3) in the initial years of operation of the bridge, leading to significant losses which were added to total project cost. The first ever book profit was earned by NTBCL only in the year ending 31 March 2006.[17]

(iv) *There is no incentive to minimize costs* since costs are completely passed through to consumers. O&M expenses are taken "off the top" when determining the surplus available for appropriation to recover project costs and returns.[18] There is neither any norm based estimate of what they should be nor any cap on what is allowable. For instance, they include "without limitation" attorneys' fees associated with the settlement of pending or threatened suits/claims (other than suits/claims resulting from the negligence or breach of the concession agreement by the concessionaire).[19] Allowable O&M expenses also include such items as "fines,"

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[15] Total Cost of the Project is defined as the aggregate of (i) Project Cost; (ii) Major Maintenance Expenses; and (iii) *shortfalls in the recovery of Returns in a specific financial year*. (Sec 14.1 of CA).

[16] To illustrate, if there are no returns during the first four years, the addition of the deficit in returns (i.e., 20% of total project cost) to the initial project cost of approximately Rs. 408 crore (US$ 100m) would result in the total project cost that has to be covered *more than doubling* over the period, i.e., exceeding Rs. 816 crore (US$ 200m). Returns of 20% would be payable thereafter on this enhanced total project cost.

[17] See Annual Report cited in footnote 2.

[18] Section 14.2 of the CA on Calculation of Returns states that "The amount available for appropriation by the Concessionaire for the purpose of recovering the Total Cost of Project and the Returns thereon, as illustrated in Appendix F, shall be calculated at annual intervals from the Effective Date in the following manner: Start with: Gross revenues from Fee collections, income from advertising and Development Income less O&M Expenses less Taxes (excluding any customs or import duties)."

[19] "O&M Expense means for any period commencing after the Project Commissioning Date, all costs and expenses incurred by the Concessionaire or the O&M Contractor on behalf of the Concessionaire in relation to the operation and maintenance of the Noida Bridge, other than Major Maintenance Expenses, including, without limitation (a) all payments made to the Contractor under the O&M Contract (b) all cost of salaries

which are questionable as a legitimate expense. The absence of an incentive to control O&M expenses is again likely to result in *a longer time being taken to recover the requisite returns, pressure from the concessionaire to adjust tolls upward, and pressure for the grant of Development Rights*.

12. Several of these eventualities have come to pass. As noted in the concessionaire company's Annual Report for 2005-06 (p1), "The Independent Auditor, M/s. A. F. Ferguson & Company, Chartered Accountants, have determined accrued return as designated under the Concession Agreement and due to the Company till March 31, 2006 amounting to Rs. 9,533.92 million (US$ 234m) as on March 31, 2006, inclusive of project cost."[20] Further, the AIM Admission Document (p22) states, "The Directors currently estimate that the concession period will be in excess of 70 years, as a result of the shortfalls in the recovery by the Company of the Total Project Cost and the Returns to date."[21] Finally, the concessionaire has requested the grant of Development Rights under the concession

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and other employee compensation, (c) all cost of materials, supplies, utilities and other services, (d) all premiums for insurance, (e) all Taxes, other than Corporate Tax payable by the Concessionaire and other duties imposed upon or measured by income or receipts, interest, additions to tax, expenses and other similar costs associated therewith, (f) all franchise, licensing, excise, property and other similar taxes and all costs and fees incurred in order to obtain and maintain all Clearances necessary for the operation and maintenance of the Noida Bridge at their full rated capacity, (g) all cost of settlement of pending or threatened actions, suits, claims and proceedings and all related fines, judgments and other costs (including, without limitation, attorneys' fees) associated therewith other than the actions, suits, claims and proceedings resulting from the negligence or breach of the Concession Agreement by the Concessionaire (h) all repair, replacement and maintenance costs of the Noida Bridge, and all other expenditures of the Concessionaire required under applicable law or under applicable Clearance necessary for the operation and maintenance of the Noida bridge at their full rated capacity (excluding Major Maintenance Expense), and (i) all fees and expenses of consultants and experts retained by the Concessionaire (including, without limitation, attorneys' and accountants' fees) in the ordinary course of business. The O&M Expense shall be determined and certified by the Independent Auditor." (Sec 1.1 of CA).

[20] An annual return of 20% per annum on a total project cost of Rs. 953.4 crore (US $ 234m) would amount to payment of about Rs. 191 crore (US $ 47m) per annum to the concessionaire. In contrast, the Annual report cited in footnote 2 shows that in 2005-06 the total income of NTBCL was around Rs. 40.7 crore (US$ 10 m) while profits were only Rs. 2.6 crore (US$ 0.63 m). If profits are entirely directed towards payment of returns, this would imply a shortfall of about Rs. 188 crore (US$ 46 m) in returns that would be added to the total project cost, taking it to about Rs. 1,142 crore (US$ 280 m) the following year. Such spiraling of project costs could lead to a need to keep extending the concession period and/or raising tariffs apart from supporting claims for Development Rights over real estate.

[21] A simulation exercise was undertaken using the traffic and associated revenue projections provided in "Traffic Consultants' Report and Business Valuation" prepared in February, 2006 by M/s Halcrow Consulting India Limited (which is appended to the AIM Admission Document cited in footnote 2). Starting with a Total Cost of Project of Rs. 953.4 crore in 2006, it appears that even if the entire operating surplus were allocated to payment of returns there would still be a shortfall in returns each year, with the result that the total project cost in 2021 could be about Rs. 11,817.54 crore. This scenario suggests a potential concession in perpetuity unless significant Development Rights or increases in toll rates or both are granted.

agreement and has received 'in principle' approval for the same.[22] Consequently, DND Flyway Limited, a fully owned subsidiary of NTBCL, has been incorporated with the object of carrying out development activities on the surplus land around the Delhi Noida bridge.[23] DND Flyway Limited has acquired 30.493 acres of land from its holding company (NTBCL) for a consideration of Rs. 103,48,41,881 (US$ 25m).[24]

(b) Justification for the level of return awarded

13. The level of return, at 20% per annum on the total cost of the project, cannot be assessed as appropriate without knowing whether such returns are the norm.

(i) In the absence of benchmarks or data on comparable projects in the sector and country at the time – since this was among the very first BOOT projects in the roads sector in India – the return can be judged to have been *justified only if it was the outcome of competitive bidding for the contract*. However, the concession for the Delhi Noida bridge project was not awarded competitively.[25]

(ii) High returns are also considered a reward for high risk. In this concession agreement, however, the guarantee of a return (whether through extension of the concession period or through tariff adjustments or through the exercise of Development Rights) means that the *concessionaire does not bear any significant commercial risk*.

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[22] Income from the exercise of Development Rights would be applied towards the recovery of Total Cost of Project and returns thereon under the concession agreement. See footnotes 14 and 30.

[23] "In addition to the land required for the construction of the Delhi Noida Toll Bridge, the Company also has approximately 99 acres of land, which is currently not required for the operation of the Delhi Noida Toll Bridge. This 'surplus' land consists of (a) 65 acres of land on the Delhi side of the Delhi Noida Toll Bridge (leased to the Company pursuant to a sub-lease from NOIDA dated 23 October 1998) and (b) 34.408 acres of land on the Noida side of the Delhi Noida Toll Bridge (leased to the Company pursuant to a sub-lease from NOIDA dated 23 October 1998). Jones Lang LaSalle estimated (in 2002 and 2004) that 99 acres of land could potentially be developed and estimated the potential value of such land at US$ 82 million if it were developed." See AIM Admission Document (p 32) cited in footnote 2.

[24] See Annual Report 2005-06 of DND Flyway Ltd. (pp 65 and 72) appended to Annual Report of NTBCL cited in footnote 2.

[25] "The Steering Committee has decided that the Project should be implemented by a corporate entity promoted by IL&FS and incorporated in the State of Uttar Pradesh for the purpose of developing and implementing the Project." (Pg 3 of CA).

(iii) In addition, since the base upon which returns are paid is the total cost of the project, i.e., equity plus debt, equity holders are effectively earning substantially more than 20% per annum given the rate of interest on debt is less than 20% per annum.[26] In effect, the margin between the average interest rate payable on the company's Term Loans (14.7% per annum) and the assured return of 20% would accrue as an additional return to equity holders, who would receive about 32% per annum on their equity holding.

In fact, returns to equity are likely to be higher than described above on two accounts. First, carrying forward the annual deficit in returns and payment of compounded returns on this deficit means that while the debt burden on the concessionaire would only be compounded by the rate of interest, a major share of the compounding of returns would be allocated to equity, resulting in an extraordinary rise in the return on equity.[27] Second, debt has been restructured to reduce the average interest rate payable. This implies a sharp rise in the return on equity[28] as there is no mechanism in the concession agreement for the conceding authority or users to 'claw-back' these gains.[29]

2. Development Rights

[26] To illustrate, debt was 70% of the total capital cost of the project. Assuming a capital base of Rs. 100 crore and a rate of interest of 14.7% pa, the interest payment due the first year would be 0.14.7*70 = Rs. 10.29 crore. Thus, of the total return on capital cost of Rs. 20 crore (20% of Rs. 100 crore), Rs. 9.71 crore would be available as return on equity, which amounts to a rate of return of approximately 32% to equity (Rs. 9.71 crore on an equity base of Rs. 30 crore). Also refer to footnote 28.

[27] In addition, any increase in total project cost (e.g., due to shortfalls in returns) would result in higher returns being due to the concessionaire (since the base upon which returns are due would increase). As the amount payable to debt is fixed, the returns allocated to equity would increase disproportionately.

[28] According to the case study cited in footnote 3, the average interest rate payable has declined from 14.7% to 8.5% per annum. As in footnote 26, assuming a capital base of Rs. 100 crore and retaining a 70:30 debt to equity ratio, the interest payment due would now be Rs. 0.085*70 = Rs. 5.95 crore. Thus, of the total return on capital cost of Rs. 20 crore (20% of Rs. 100 crore), Rs. 14.05 crore would be available as return on equity, which amounts to a rate of return of approximately 47% to equity (Rs. 14.05 crore on an equity base of Rs. 30 crore).

[29] In the UK it is established practice for the conceding authority and the concessionaire to share the gains from the refinancing of PPP projects. See Chapter 34 of UK Treasury Guidance on Standardisation of PFI contracts, available at: http://www.hm-treasury.gov.uk/media/4/E/pfi_sopc4ch31-37_210307.pdf.

14. The criteria for deciding that Development Rights need to be granted, the value of the Development Rights to be granted (and the principles underlying such valuation), as well as the duration for which they would be granted are not known.[30] From the point of view of the concessionaire, the grant of wide-ranging Development Rights,[31] as outlined in the concession agreement, would virtually remove all traffic risk from the project since the exercise of these rights would permit the recovery of the total project cost and returns thereon in a timely fashion.[32]

15. As noted earlier, the concessionaire has received 'in principle' approval for the award of Development Rights under the concession agreement,[33] although a formal agreement between NOIDA and NTBCL/DND Flyway Limited has still to be executed. While any rights granted would naturally be governed by the terms of the Development Rights agreement,[34] the concession agreement should have been transparent about the criteria for award and the way in which Development Income would be applied towards reducing total project costs of NTBCL.[35]

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[30] "In the event that the Independent Auditor, upon reference by the Concessionaire, determines that the Project is not generating sufficient revenues for the Concessionaire to recover the Total Cost of Project and the Returns thereon, or the Independent Engineer in its decision under Section 3.5(a) determines that the Concessionaire must be granted such Development Rights as may be specified, the Concessionaire may request that NOIDA grant, or cause GOUP or DG, as the case may be, to grant to it Development Rights within their respective jurisdictions for the purpose of generating Development Income. Upon receiving such a request from the Concessionaire, NOIDA in consultation with the Independent Auditor, may, in its sole discretion, grant to the Concessionaire Development Rights for the generation of Development Income." (Sec 4.1(a) of the CA).

[31] See footnote 14.

[32] The guarantee of a 20% return on total project cost is not time-bound: automatic extension of the concession period to permit the recovery of total project cost and returns thereon would <u>not</u> remove all risk from the project since the concessionaire's investment would be locked in for a longer period (and the present value of additional returns after 30 years is very low).

[33] See footnote 22.

[34] "The Development Rights shall be granted under a separate agreement and shall be governed by the terms of agreement under which they are granted." (Sec 4.1(b) of the CA).

[35] Even after the amount of Rs. 103.48 crore received by NTBCL in 2004 as consideration for the 30.5 acres transferred to DND Flyway Ltd., its subsidiary, had been applied to recovery of project costs, the total project cost outstanding was Rs. 953.34 crore (US$ 234m). While NTBCL is obliged to pay NOIDA Rs. 1 per annum as lease rental for the land, the price at which the land was transferred to DND Flyway Ltd. was based upon a valuation by a professional valuer (engaged by the concessionaire) on a realisable value basis. (See p32, AIM Admission Document cited in footnote 2). The concession agreement (or its implementation) should have allowed for NOIDA to ensure that the maximum possible price was realized for the transferred land so as to maximize recovery of project costs. The transfer of the land to DND Flyway Ltd., which, as a subsidiary, is not party to the concession agreement, makes it unclear whether NOIDA can ensure that the benefits of real estate development will be applied for reduction in the total project cost of the bridge for purposes of returns and repayment.

16. The concession agreement provides no information on the principles or rules to be followed by the Independent Auditor when concluding that Development Rights should be granted in lieu of (or in addition to) an extension of the concession period.[36] On what basis would the Auditor decide whether an extension to the concession is unlikely to generate "sufficient revenues" to recover Total Cost of Project and the necessary Return? Transparency and specificity is needed on these aspects to avoid giving the Independent Auditor undue discretion in making such key determinations.

17. The concession agreement also does not state how the Development Income generated would be monitored in the absence of an escrow account, by whom it would be monitored and what role, if any, the Independent Auditor would play in this.

3. Termination payments

18. Termination payments are due when there is a transfer of project assets from the concessionaire to NOIDA because of termination of the concession contract on account of any of the following: (a) conditions precedent not having been satisfied by the concessionaire or by NOIDA, (b) default by either party, or (c) Force Majeure.

19. Termination of the concession agreement by NOIDA would amount to a NOIDA event of default.[37] In the event NOIDA decides to repudiate the agreement, it would be obliged to pay the concessionaire an amount equal to the *total project cost and returns thereon outstanding till the termination date.*[38] As noted in para

[36] Sec 3.5(a)(ii) of the CA.
[37] Sec 17.1(e) of the CA.
[38] "Subject to Section 15.3 above, in the event that the Concessionaire terminates this Agreement for a NOIDA Event of Default: a) all of the Concessionaire right, title and interest in and to the Project Assests shall be transferred to NOIDA or its nominated agency in accordance with Article 19 and NOIDA or its nominated agency, as the case may be, shall accept such transfer. However as a precondition to such transfer NOIDA shall be obligated to pay the Concessionaire, the aggregate of (i) all sums due and owing to the Lenders under the respective Financing Agreements, including any interest accrued thereon and any other amounts due and payable; (ii) an amount equal to the Total Cost of Project and the Returns thereon,

12, the accrued return (inclusive of project cost) due to the concessionaire was Rs. 953.4 crore (US$ 234m) on March 31, 2006, an amount more than double the original project cost. The magnitude of this financial liability would make it very difficult for NOIDA to terminate the contract if it concluded that the contract was no longer in the public interest. While there should be costs to unilateral abrogation of any contract, the size of the penalty imposed on the public partner in this case seems disproportionate to the risk of capricious repudiation by the public sector. To the extent that the liability faced by NOIDA would increase with future shortfalls in returns (see footnote 20), it would be increasingly difficult for the public partner to terminate the contract as time goes by.

20. In the case of termination following a concessionaire event of default, NOIDA is obligated to compensate the concessionaire for the debt and debt service outstanding.[39] In the Delhi Noida bridge project no distinction is made in terms of compensation between a concessionaire event of default which occurs <u>prior</u> to entry into operation of the bridge (i.e., before construction has been completed) vs. one that occurs <u>after</u> commercial operation has commenced (i.e. post-construction). In both cases NOIDA pays off the total debt (including interest accrued and any other amounts due and payable) outstanding. *As a result the construction completion risk, which should more appropriately fall to the concessionaire, is substantially shifted to NOIDA*. In contrast, the MCA for National Highways[40] provides for <u>no</u> payment to the concessionaire in the event of concessionaire default prior to completion of construction. This maximizes the concessionaire's incentive to complete the work and to do so swiftly. Further, the concessionaire is entitled to payment of only 90% of debt outstanding (less insurance) for termination due to

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outstanding until the termination date of the Concession Period as per this Article {excluding the amounts specified in sub-clause (i)}, and (ii) all such additional costs that may be incurred in transferring the Noida Bridge as specified in Section 19.7 (b); after deducting the aggregate of (i) any cash reserve(s) created for meeting debt service obligations of the Concessionaire, provided that such reserve(s) is utilized for the purpose for which it was created and (ii) the proceeds from the Insurance covers; as determined by the Independent Auditor;" (Sec 18.1(a) of the CA).

[39] NOIDA is obligated to pay the concessionaire "the aggregate of (i) all sums due and owing to the Lenders under the respective Financing Agreements, including any interest accrued thereon and any other amounts due and payable; (ii) all such additional costs that may be incurred in transferring the Noida bridge…" (Sec 18.2(a) of the CA).

[40] The Model Concession Agreement (MCA) for National Highways was approved by the Government of India and published by the Planning Commission in September 2006.

concessionaire default during the operation period (MCA 37.3.1). This exposes lenders to concessionaire performance risk – creating *an incentive for lender due diligence* on concessionaire performance.

4. Multiple roles of the sponsor

21. IL&FS, a project sponsor, was fully involved in (a) conceptualizing the project[41] and (b) as a member of the Steering Committee, in deciding that the project should be implemented by a corporate entity promoted by itself (see footnote 24). *The involvement of the project sponsor in designing the structure and setting the technical specifications of the project would be considered a clear conflict of interest under best practice norms of public sector contracting*.[42]

22. IL&FS was also counted among the lenders to the concessionaire[43] and, in that capacity, would have had a voice in the selection of the Independent Auditor and Independent Engineer, sole say in the selection of the one-member Project Oversight Board in case of no agreement upon this between NOIDA and the Concessionaire,[44] and, likewise, sole say in determining the Chairman of the three-member Fee Review Committee.[45] The potential tie-breaking role of IL&FS (as a lender) in these selection processes could result in both the Project Oversight Board

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[41] "NOIDA, the Delhi Administration of the Union Territory of Delhi, as the predecessor in interest to DG [The Government of the National Capital Territory of Delhi], and IL&FS entered into a Memorandum of Understanding dated April 7, 1992*, to establish the parameters for the implementation of the Project, the granting of the Concession* and the responsibilities of the various parties hereto." Also "IL&FS, with the approval of the Steering Committee, caused Kampsax to conduct a detailed Project Report and a Feasibility Study, which have been used to determine the location of and alignment for the Project." (Pg 2 of CA)

[42] "…[A]n Applicant may be considered to have a conflict of interest with one or more parties in this Bid Process, …if such Applicant has participated as a consultant to the Authority in the preparation of the design or technical specifications of the Project." (See 'Guidelines for Public Private Partnership Pre-Qualification of Bidders' 2.2(c)(vi), published by the Planning Commission).

[43] "Lenders means any Persons based in India or abroad providing secured or unsecured credit facilities, including lease and hire purchase facilities to the Concessionaire pursuant to the Financing Agreements and, *where appropriate shall, in relation to the Concessionaire, include IL&FS in its capacity as such*." (Sec 1.1 of CA).

[44] "In the event that there can be no consensus, within the time specified in sub clause (a) between NOIDA and the Concessionaire as to the constitution of the Project Oversight Board, then the Person recommended by the Lenders shall be appointed as constituting the Project Oversight Board." (Sec 25.1(b) of CA).

[45] "In the event the representatives appointed by NOIDA and the Concessionaire are unable to agree on the third member, within a period of 7 days from their appointment, the Person recommended by the Lenders shall be appointed as the third member, provided such person is an Indian citizen." (Sec 13.4(a) of CA).

and the Fee Review Committee being perceived as weighted in favor of the interests of the private partner.

23. As a sole-source negotiated project, the Delhi NOIDA bridge project has not faced the market test of commercial viability that is usually provided by a competitive concessionaire selection process. Hence the involvement of the project sponsor in deciding the key parameters of the project could be questioned as resulting in a design and deal that disproportionately favored the private party to the contract. It is also unusual that IL&FS (as sponsor of the project SPV) is explicitly named as one of the parties to the contract (with consequent rights of intervention) rather than the contract only being between NOIDA (concedent) and the NTBCL (concessionaire).

5. Independent Auditor and Independent Engineer

24. The contract accords substantial discretion and decision-making power to the Independent Auditor and Independent Engineer, whose roles encompass, variously, certification of compliance with quality standards, certification and approval of construction and O&M costs, verification of calculations underlying requests for fee revision, determination of occurrence of Force Majeure, and determination of steps to restore financial viability of the project, including award of Development Rights and changes to concession term.

25. While Section 8.1, 'Appointment of Independent Engineer,' provides descriptions of the different responsibilities of the Independent Engineer, a systematic listing of all such responsibilities in the form of detailed Terms of Reference appended to the CA would have been better practice in terms of providing for accountability and monitoring of the performance of the Independent Engineer and also providing a complete picture of the level of responsibility and discretion awarded to the office. The same applies to the case of the Independent Auditor.

26. Independence of Auditor/Engineer is always difficult to assure. However, well specified selection procedures and criteria help. In the Delhi Noida bridge contract, the *process or principles to be followed in the selection of the Independent Auditor and Independent Engineer are not specified* and the qualifications for each post are left vague.[46] Selection from a list of firms qualified on objective, pre-specified criteria is considered good practice when deciding upon appropriate candidates for performance of such an important function.

[46] "Independent Auditor means ________, an internationally recognized firm of chartered accountants that is also licensed to practice in India as may be appointed by the Lenders, NOIDA and the Concessionaire. Independent Engineer means ________, an internationally recognized firm of engineers agreed to be appointed by the Lenders, NOIDA and the Concessionaire." (Sec 1.1 of CA).

6. Selection of Project Oversight Board

27. The Project Oversight Board is a single member body whose role is "to resolve any dispute that may arise in relation to any decision or findings of the Independent Engineer or the Independent Auditor…"[47] For instance, "the Cost of Construction determined and certified by the Independent Engineer shall be open to review only by the Project Oversight Board in accordance with Article 25."[48] If the concession agreement is terminated after the conditions precedent have been partially satisfied but a Certificate of Commencement has not been issued, it is the Project Oversight Board that determines the compensation payable to the concessionaire by NOIDA (as long as the non-fulfillment of conditions precedent was not caused by negligence or default by the concessionaire).[49]

28. In view of the power and discretion provided to the Board, a well-specified and transparent procedure for selection of the Board would be good practice. For instance, weights could be given to different kinds of relevant experience and, ideally, selection of the member should be made from a list of qualified candidates. As noted earlier (see para. 22), the fact that the lenders may have the final say in selection of the Board[50] is not ideal in view of the fact that IL&FS, the project sponsor, is also included among the lenders. This could result in a perception that the Board is biased towards the private party.

7. Fees

29. The concessionaire has been given the power to "determine, demand, collect, retain and appropriate" the fee for use of the Noida bridge[51] in order to recover the total cost of the project and returns thereon. The fact that the concessionaire has the power to determine this fee is in contrast to the general practice in the case of

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[47] Sec 25.2(a) of CA.
[48] Sec 8.1(d) of CA.
[49] Sec 3.5(d) of CA.
[50] Sec 25.1(b) of CA.
[51] Sec 2.1(b)(iv) of CA.

National Highways and State Highways, where (as per law) the power to determine user fees rests with the government – rather than being vested in a private entity.

30. The Base Fee Rate is adjusted to reflect consumer price inflation between the time of signing the agreement and the project commissioning date to arrive at the Initial Fee Rate that is to be charged when the project is commissioned. The fee would be annually reviewed thereafter and revised in line with changes in CPI. Indexing of user charges is usually intended to avoid an unanticipated decline in real revenues net of costs. Since WPI is likely to reflect inflation in concessionaire costs more accurately than would CPI, it appears that indexing to WPI would have been more appropriate than CPI. The MCA for National Highways[52] requires that user fees only be indexed to 40% of the inflation rate. The rationale for this is that debt is fixed in nominal terms; hence the real value of debt repayments declines with inflation and there is no need to index the share of revenues allocated to debt repayment to inflation. *Following this logic, it is not clear that the fee should always be adjusted to reflect the full change in the CPI.*

8. Other issues

31. The following features of the concession agreement for the Delhi Noida bridge project would also be worthy of further review.

(i) The contract does not include or refer to specific standards of safety. Beyond a requirement of medical and emergency response within 15 minutes of reported accidents and the clearance of blockages within one hour of any accident (Appendix G 1.3 of CA) no other output measures have been specified or quantified. Greater detail on the nature of preparedness (inputs), performance measures or outputs, as well as penalties for an unsatisfactory safety record would seem to be in order.

(ii) Included as a condition precedent is the requirement that "No Competent Authority, trade union, environmental group or any other person or organization, by

[52] See footnote 40.

the time at which all other conditions set forth in this Article 3 have been satisfied shall have instituted any action or suit to prevent, prohibit or otherwise challenge the Project."[53] As a condition that is outside the control of both NOIDA and the concessionaire, it would have been more appropriate for this to be included as a Force Majeure event. In effect, it leaves NOIDA open to claims for compensation in the same way as under NOIDA event of default (see Sec 3.5(d) of CA).

(iii) One of the "Obligations" of NOIDA during the development stage is to "cooperate on best efforts basis with the Concessionaire in order to enable the Concessionaire to achieve timely Financial Closure. Such cooperation shall include, *without limitation*, the obligation of NOIDA to consider *reasonable* modifications to this Agreement as may be required by the Lenders and execution of such further appropriate documentation or additional writings, in order to facilitate the process of achieving Financial Closure."[54] This appears to be a very open-ended obligation for NOIDA to take on.

(iv) The concession agreement does not spell out the penalty payments or sanctions for not adhering to performance specifications/standards. In fact, Appendix G, Part IV of the CA notes that the actual quantum of the penalty would be spelt out in the O&M Contract to be finalised in consultation with the IE.[55] As the O&M contract is signed between the concessionaire and the O&M contractor, it seems odd that penalties that would be applied to the concessionaire by NOIDA would be specified in the O&M contract rather than in the concession agreement.

(v) The concessionaire has been given the right to mortgage its interest in the project assets, including the project site.[56] By comparison, the MCA for National Highways and the concessions for the Delhi and Mumbai airports do not give any

[53] Sec 3.1(a)(viii) of CA.
[54] Sec 6.1B(c) of CA.
[55] "The concessionaire shall ensure that the performance specifications/standards provided in Parts I, II and III of the Annex on Concessionaire O&M obligations are adhered to. In the event of concessionaire failure to comply with the performance requirements, the Concessionaire shall be liable to penalties and/or sanctions as determined by the IE and IA. The actual quantum of penalty would be spelt out in the O&M Contract to be finalised in consultation with the IE." (Appendix G, Part IV of CA).
[56] Sec 2.2(d) of CA.

such rights to mortgage public land to the private developer. This unusual provision reduces the concessionaire's risk significantly.

(vi) Under the agreement NOIDA undertakes not to build a competing facility for a period of 10 years or till the NOIDA bridge reaches its Full Rated Capacity (defined as 16,000 passenger car units during a peak hour), whichever is later.[57] However, "[t]he level of commercial traffic on the Delhi Noida Toll Bridge originally projected has not materialized since inception."[58] The slow growth of traffic in contrast to the levels projected at contract award implies that the period for which NTBCL would retain a monopoly over traffic between South Delhi and Noida is likely to be much longer than the ten years originally foreseen.

Conclusions

32. This review has shown that the concession agreement for the Delhi Noida bridge project has several features that appear to weigh the contract in favor of the private partner and that, from a public policy viewpoint, depart from best practice contract design.

33. It may be argued that some of these aspects reflect errors of inexperience that could be expected in one of the first BOOT projects successfully promoted in the country. For instance, the magnified risk perception of the promoters of pioneering projects and the high signaling value (for future projects) of successfully attracting private capital to an infrastructure project may explain the provision of cost-plus returns to the concessionaire.

34. However, a more transparent and competitive *process* for selection of the concessionaire could and should have been followed to both shed light upon the

[57] "NOIDA hereby undertakes and agrees not to propose, recommend, implement or permit to be implemented without the prior written consent of the concessionaire…any bridge or other road transport network (including tunnels) which does not involve the collection of tolls, fee or other charges or involves the collection of tolls, fee or other charges which are lower than the fee being charged for the Noida Bridge and which spans across the Yamuna River within the area. for a period of 10 years or till the Noida Bridge achieves its Full Rated Capacity, whichever is later." (See 2.2(a)).
[58] See NTBCL's AIM Admission Document cited in footnote 2 (p50).

commercial viability of the project and to get the best possible deal for the conceding authority. Open competitive bidding would have provided an important test of the realism of the traffic projections underpinning the project and its consequent commercial viability.[59] Further, the transfer of traffic risk to the private party in combination with bid solicitation could have helped dimension the project in such a way as to avoid the need for support to project cash flows from Development Rights, etc.

35. The potential for gold-plating (resulting in higher tolls and/or a longer concession period) could also have been minimized if the total cost of project and O&M cost had been capped and if incentives to control costs, both in absolute terms as well as in relation to a realistic projection of traffic, had been included.

36. Finally, the fact that a single entity acted as adviser to the conceding authority, promoter/sponsor of the concessionaire company and as a lender to the project created conflicts of interest that could have been expected to result in a contract that would be unduly favorable to the private party.

37. To ensure that the public interest is not only served but is also seen to be served, key lessons from the Delhi Noida bridge concession should be taken on board for public sector contracting going forward:

- Public private partnerships require risk to be shared between the parties and rewards to be commensurate with risk. Thus, negotiated sole-source contracts and guaranteed returns on cost must be avoided.
- Measures must be institutionalized to identify and resolve potential conflicts of interest as early as possible.
- Project capital and operational costs should be capped. The party bearing these costs should be able to check that they are 'reasonable.'
- Award criteria for Development Rights must be precise, and unambiguous principles for valuing them should be stated upfront.

[59] "The level of commercial traffic on the Delhi NOIDA Toll Bridge originally projected has not materialized since inception." See AIM Admission Document (p 50) cited in footnote 2.

- There should be a clear separation between the roles of the public authority as concedent and the private sector as concessionaire.
- To avoid bias, crucial appointments such as those of the Independent Engineer, Independent Auditor and Project Oversight Board should be based upon transparent selection criteria. Selection should be made by the conceding authority from a mutually acceptable shortlist and should not involve third parties.