Structuring PPPs in Aviation Sector: Case of Delhi and Mumbai Airport Privatization

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Abstract

The concession agreement for the modernization and operation of Indira Gandhi International airport in Delhi and Chhatrapati Shivaji International airport at Mumbai respectively is referred to as Operation Management and Development Agreement (OMDA). The OMDA was a part of a set of transaction documents along with the request for proposal provided to potential bidders. The OMDA laid out the contractual terms for structuring the PPP. This paper discusses the evolution of the draft OMDA from when it was first released in April 2005 to the bidders till it was released as a final OMDA in August 2005 before an extended bidding date. During this period, some of the critical issues addressed were: limits to commercial development of airport land, nature of tariff regulatory regime, contingent liabilities including performance bonds and termination payments, and potential contractual and strategic conflicts. It brings out the intra-governmental issues and processes, and the significant learning that formed part of these PPP concessions, which could well be among the largest in the world.

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Structuring PPPs in Aviation Sector: Case of Delhi and Mumbai Airport Privatization

The Inter Ministerial Group (IMG), constituted by Ministry of Civil Aviation (MoCA) to assist the Empowered Group of Ministers (EGoM), had been seized of various issues in the course of awarding long term concessions for the Delhi and Mumbai Airports. These efforts to attract private participation were initiated following the Cabinet decision of the National Democratic Alliance government in September 2003 to restructure Delhi and Mumbai airports. The idea was to bring in the private sector through a long term PPP concession by setting up a Joint Venture (JV) of a private player (or a consortium) with the Airports Authority of India (AAI). The AAI was a public sector entity owning and managing Delhi, Mumbai and all other commercial airports in India, excluding Cochin. Bangalore and Hyderabad airports had also been awarded to private entities on Public Private Partnership (PPP) basis in 2004. The motivation for this move was to develop the airports of India's two most important cities as world class airports. There was much that was lacking in the operations at these airports.

Demand had grown very rapidly, especially since the reform of the Indian economy in the early nineties (Exhibit 1). The entry of private players in the domestic airline industry had led to a steady growth in traffic and improvement in the quality of flight services. Ground level services, however, had not improved, leading to growing congestion and difficulty imposed on passengers at airports. Facilities were poor, even in areas that could be considered as basic – toilets and restaurants at airports, lounge facilities, connectivity from one terminal to another, and clearance of baggage.

Major airports also had passenger related commercial activities like shopping areas, travel related services, cargo and warehousing facilities etc. In comparison to similar sized airports, internationally and more particularly of neighboring South East Asian countries, this potential had not been fully exploited in Mumbai or Delhi airports. Nor were hotel and other facilities adequately provided, especially at the Delhi airport

Despite the change of government to the United Progressive Alliance in 2004, the process was taken further by the Government of India (GoI). The EGoM and IMG were reconstituted. The Expression of Interest was invited in July 2004. The global technical advisor, financial consultant, legal consultant and accounting and tax advisor were appointed. The Request for Proposal (RFP) along with draft transaction documents was released to nine prequalified bidders on April 1, 2005. After receiving the RFP and other documents, as part of their due diligence, the prequalified bidders were to visit the airports, undertake site inspection, meet the MoCA and other relevant government agencies, examine all available data, and comment on the draft transaction documents. The bid submission was slated for June 24, 2005, by which time the draft transaction documents were to be finalized.

The RFP required that the bidders submit technical and financial bids at the same time. The technical bids were to be evaluated for (i) Management Capability, Commitment and Value Add, and (ii) Development Capability, Commitment and Value Add. These were to be evaluated on a number of sub-factors and only those who scored a minimum of 80 on both parameters were to go on to the next stage, when their financial bids were to be opened. The financial bids would specify the percentage revenue they were willing to share with the Government.

During this period, the transaction documents which included the OMDA were being drafted. They were to be ready for study by the bidders before the bid submission. While reviewing the draft OMDA, the member of the IMG representing the Planning Commission (PC) highlighted many issues which could cause problems in the post bid phase. These were discussed by the IMG. It soon became clear that the documents cannot be finalized in time for the bid submission, which was then postponed. The transaction documents, including the OMDA, could be finalized only by August 30, 2005 due to which the bid date was extended to September 14, 2005.

This paper discusses the major issues which influenced the revision of the OMDA and related documents.

Commercial Development of Airport Land

Prior to the proposed private participation, no significant attempt had been made to provide modern amenities for passengers, although surplus land was available after accounting for aeronautical requirements of the airports. Since these airports were well within the urban agglomeration of the cities, the land value for commercial use was very significant. The consultants to GoI expected that these 'surplus' lands would be utilized for pure commercial activities independent of aeronautical activities. They recommended that the selected bidder should be allowed to use these lands for shopping malls, technology parks, office complexes, business parks, golf course etc.

The OMDA classified the assets created at the airport in several categories. Firstly, assets were classified based on whether they were aeronautical and non aeronautical/commercial. The non aeronautical/commercial assets were further distinguished on whether they were to perform commercial activities related to passenger/cargo traffic and thus located within the terminal building or associated facilities or those which are outside this ambit like hotels. Schedule 19 of the draft OMDA classified these non aeronautical/commercial asset types under Part I (Transfer Assets) and Part II (Non-Transfer Assets) respectively. Separate treatment was to be meted out to assets at the time of transfer of the project to AAI based on the category they fell under. While AAI was obliged to take over the assets which were regarded as necessary for rendering the aeronautical services (Part I assets) at the time of buy-out or transfer of the project, the option was with the AAI to decide whether to take over the assets meant for non aeronautical services (Part II assets) or to let them continue with the JV. Separate methods of valuation were prescribed for these two categories for determining the price at the time of transfer.

The draft OMDA included in its scope aeronautical and non-aeronautical services. It laid out in Schedule 19 Part II that the airport land can be used for construction of business parks, high tech parks, commercial offices, leisure activities, shopping complexes, sports complex, golf course, etc.

The above raised several legal and policy issues. Firstly, it was not clear whether AAI, which was a statutory body created under the Airports Authority of India Act of 1994, was empowered to use the land for the commercial purposes in the manner proposed under OMDA. In case it was not empowered to undertake these activities itself, it could not have leased the land to another party for commercial purposes. The issue became more important as the Policy on Airport Infrastructure in clause 12.1 stated that "there will be a major thrust towards increasing the share of commercial revenue emerging from non-aeronautical sources".

The option of acquiring the non-transfer assets immediately gave rise to issues such as:

(a) What would be the price at which AAI can buy non-transfer assets?
(b) Whether these assets can be mortgaged? and
(c) Whether or not there would be conflict of interest in the event of the airport and the non-transfer assets eventually being in separate hands?

It was pointed out by the PC that the non-transfer assets at the time of expiry of the concession period of thirty/sixty years may have very high prices forcing AAI to forego taking up non-transfer assets. This would result in fragmentation of airport with transfer assets being vested with AAI and the non-transfer asset with a private player, both having divergent objectives. The PC also pointed out that the OMDA also allowed the JV or its sub-lessees to create encumbrances by mortgaging of non-transferable assets, which can create difficulty in getting back the assets at the end of the concession period. Hence, the encumbrances should also not be allowed for non-transferable assets.

While MoCA took the view that AAI could use the land for commercial purposes, the PC felt that the AAI Act did not allow AAI to use the land for commercial purposes save the use of land for passenger amenities incidental to its functions, including hotels, restaurants, etc. as provided in the Act. Reference was made by MoCA to the Attorney-General of India who opined that amendment to AAI Act of 1994 would be necessary before AAI could lease land to the JV for outright commercial purposes (which are not incidental to the functions of AAI as stipulated in the AAI Act).

In schedule 19 of the final OMDA, the development of land for outright commercial purposes unrelated to the airport or passengers, was eventually omitted. Exhibits 2 and 3 provide a list of services defined as aeronautical and non-aeronautical (part I and part II) in the final OMDA.

Even on non-aeronautical services incidental to the functions of AAI such as hotel(s) for passengers transiting through the airports, the PC's view was that the same can be leased out directly by the AAI to a hotel operator without assigning such parcel to the JV. This approach, it was argued, would fetch better value to AAI as a hotel operator would pay a better price for a lease directly from the AAI as compared to a sub-lease from the JV, especially as the hotel plots were virtually independent of the airport. It also favored doing away with the idea of non-transfer assets as the non-transfer assets were for providing non-aeronautical services (part II) incidental to functioning of airports. Separating the assets as transfer and non-transfer assets, it argued, may fragment the development of the airports in the future.

Eventually, according to the final OMDA (Chapter 19, Clause 6(b)), the non-transfer asset on the expiry of agreement would be transferred back to the AAI, at its option, at the fair market value of non-transfer assets less the market value of the land. The process for determination of fair market value would be done by two independent valuers, one each by the AAI and by the JV from a panel of five valuers proposed by the President of the Institute of Chartered Accountants of India. The final OMDA also restricted the land use for non-transfer assets to five percent of land for Delhi and ten percent for Mumbai airport. Effectively, the area of land use for pure commercial development on permissible non-aeronautical services was restricted.

In the initial stages, the value of non-transfer assets at the time of their transfer was proposed to be "based on fair market value (which is determined based on standard methodologies, including the use of the net present value as one of the methods to be reduced by the then prevailing market lease rental for the underlying land as also for O&M revenue and capital expenditure for the economic life of such assets)". PC pointed out that instead of market lease rental, the land value should be subtracted based on its market value. It pointed out that it is relatively easier to ascertain market value than the "capitalized value of the market lease rent for the economic life or the term, whichever is lower" due to absence of similar use of land in the locality. Moreover, it argued that when the land was being given free to the JV, the reversion value should not be loaded in favour of the JV.

The EGoM decided that the deduction at the time of transfer back to AAI would be on the basis of prevailing market value of land, and the OMDA was revised accordingly.

Nature of Tariff Regulatory Regime and Uncertainty

The concession structure envisaged bidding based on the percentage of total revenue of the airport to be paid to AAI. Further, the bidders would also have to pay a pre-determined upfront fee to the AAI. The bidder offering the highest revenue share was to be declared winner provided it was pre-qualified and scored more than 80 on each of the two dimensions in the technical bid. In the event of the same bidder being the highest in both the airports, it would get the airport where the second bid was farther away from its bid. The successful bidder for the other airport would be the one with the second best offer, provided it matched the best offer.

Aeronautical and Non-Aeronautical Charges

Since the overall revenues of the JV would be dependent on the fee it could charge for aeronautical and non-aeronautical services, it was important that the basis of determination of these charges be spelt-out, given that a monopoly was being granted to the JV. The JV was to charge, initially for three years, the rates specified by the GoI for aeronautical services while it was free to charge rates for non-aeronautical services on a competitive basis. Subsequently, the aeronautical rates were to be charged based on rates specified by the proposed Airport Economic Regulatory Authority (AERA) or the GoI. This meant that while the aeronautical fees were to be regulated, the non-aeronautical charges and revenues would be unregulated creating strong incentives for revenue-generating non-aeronautical business at the cost of non-revenue generating passenger services in the absence of any formal control in terms of performance standards on passenger services and amenities.

It was pointed out by the PC that a revenue share on aeronautical tariffs would normally imply that the JV would make losses on the aeronautical side and cover them by incomes on the non-aeronautical side. In case the incomes from its non-aeronautical side were inadequate, it will not invest adequately on the aeronautical side. Hence, the entire airport operation would be driven by non-aeronautical operations.

Regulatory uncertainty could also come from whether and which of the non-aeronautical revenues would be allowed by the regulator to be excluded and how the cost base could be altered to deduct the rate base associated with non-aeronautical revenues. Under the OMDA, all revenues from non-aeronautical assets were to form part of the revenue pool from which the AAI share was to be paid. On the other hand, all costs on development of non aeronautical assets, such as hotels, were to be kept out of the cost base.Despite these regulatory uncertainties, it was notable that none of the bidders asked for clarifications. MoCA insisted on continuing with the process, despite the problem being pointed out, as changing the RFP at this stage would have caused delays. The State Support Agreement (SSA) finalized later provided in its Schedule 1 that the aeronautical tariffs and user charges would continue to be determined by MoCA in case AERA does not come into existence.

Cost Plus Model

The revenue share model with regulated aeronautical tariffs also had the potential to create regulatory uncertainty or to restrict regulatory effectiveness. Since the aeronautical tariff was to be fixed on a 'cost plus' basis, it had all the disadvantages associated with this arrangement such as gold plating of costs and inadequate incentives for efficiency in expenses, as pointed out by the PC. It could also bias the bidding process as the bidders may bid for higher revenue share but may subsequently increase the capital costs, operating expenses and tariffs beyond what is optimal from the end-user's perspective. Therefore, the PC advocated that the tariffs should be based on pre-determined price caps or incentive-based regulation so that there was regulatory certainty and no incentive for gold-plating of costs and expenses.

Further, it was indicated that the upfront fee and revenue share/annual fee paid by the bidder will not be part of the cost for determination of aeronautical tariff. For the first two years of operation, the JV was not allowed any increase in tariff. In the third year of operation, an increase in 10% over the base cost was allowed provided the mandatory capital projects were completed within the prescribed time line. From the fourth year onwards, a rise in tariff as per the SSA was provided for.

The cost plus model for tariff fixation as included in the Schedule 1 is given in Exhibit 4. This model envisaged a vector of price capped tariffs for the different aeronautical services, which would be increased year to year by the Consumer Price Index (CPI) less an efficiency factor X. This would help determine the present value of forecasted aeronautical revenues and compare the same with what is required to cover permissible costs including a cross subsidy from non-aeronautical revenues. Given the cost plus tariff regime proposed in the SSA, the OMDA did not dwell on the issue of capital costs associated with the development of airports.

Master Plan and Regulatory Asset Base

It was expected that successful bidders would propose a master plan for development of Mumbai and Delhi airports after signing the OMDA. Prior to that, all the bidders were expected to submit an initial development plan as part of the bid. There was no binding commitment associated with the initial development plan, and the master plan may differ from the development plan. The master plan had to incorporate the mandatory capital projects specified in the bid documents, the initial development plan, development standards mandated in the OMDA and had to also take into account the stakeholders' views as inputs. The AAI and MoCA were expected to review and approve the plan. The winning bidder was expected to submit the master plan within nine months of signing the OMDA.

An issue which emerged was that while AAI, being a statutory body, was exempt from taking approval of the master plan for the airports from local government, the same would not be applicable

for the JV. It was also pointed out that the local government may restrict land use for non-transfer assets. An issue brought out by the PC in the IMG was that the MoCA, and not AAI, should approve the master plan, as they retained commercial interest in the JV to the extent of 26% besides getting the revenue share. Preferably, all parameters should be laid out in the OMDA and no subsequent approvals should be mandated.

The PC also raised the point that it was appropriate to first decide on land use, and land related restraints and possibilities, before going through the bid process. Otherwise, the bidders may focus on rents arising out of developing land for commercial and peripheral purposes. Rather than focusing on passenger amenities as befitting an international class airport, the developments could be in other areas. Concerns were raised that the master plan proposed may be motivated by commercial considerations rather than the utility of the airport users. Developments could be focused on locations which maximize non-aeronautical revenues or overall profits rather than those which are best from the users' view point. In this context, the PC pointed out that the location of the new terminal building in the case of Delhi airport was planned to be away from the national highway, whereas the commercial area was earmarked closer to the National Highway. In the view of the PC, the location of the terminal needed to be closer to the National Highway to benefit the users.

In the final OMDA, the period for submission of the master plan was restricted to six months as decided by the EGoM. The AAI was simply to be informed and the MoCA was to review the master plan. Master plans had to be submitted every ten years. The JV retained the right to sub-contract, sub-license and license at the airport. It would have full responsibility to deliver the transfer and non-transfer assets unencumbered in case AAI exercises its rights.

Unresolved Questions

The master plan requirements coupled with the absence of a regulatory body and the 'cost plus' regime envisaged in the OMDA gave rise to a number of questions such as:

(a) Should the government mandate an investment level upfront that would limit the extent of a pass through to tariff?
(b) Should the proposed investment be approved by the government?
(c) Would the regulator have a role in verifying costs?
(d) Is it fair to the private partner if the costs are verified after investments are made?
(e) Who is protecting the consumer interest till a regulator is in place?
(f) What are the safeguards against gold plating of capital costs? and
(g) Given that the regulation of aeronautical charges constitutes a vector applied over multiple activities, how do we prevent the abuse of the degrees of freedom?

Performance and Bid Bond

The financial consultants to GoI proposed an upfront fee of Rs 10 billion. This was resisted in a meeting of the IMG earlier in January 2005. One of the members commented, "The IMG meetings usually rely on the presentations made by the consultants, but no agenda papers or minutes are circulated. The depth of consideration needs to improve if we wish to reach anywhere near international standards." Initially, the bidders were expected to post a performance bond for Rs 50 billion for 50 years. Similarly, the bid bond was proposed to be Rs 50 billion. The PC objected to the tenure of the performance bond and the amount of the bid bond. They argued for a tenure of five years for the performance bond and Rs 5 billion for the amount of the bid bond. The argument in support of a five year performance bond was that after the JV had made large capital investments and also opened an escrow account, no separate performance bond was necessary as it would add to costs and provide no additional security to the AAI.

The final OMDA incorporated the tenure of the performance bond as five years. The bid bond amount, however, was fixed at Rs 15 billion each for the two airports.

Termination Payment

The initial documents suggested that in case of termination due to a default by the JV, the entire debt would be repaid by the AAI. The PC felt that only 90% should be paid for by the AAI so that some risk on that score is borne by the JV and its lenders.

This was incorporated in the final OMDA for the event of company default.

The PC also felt that the initial draft of the SSA was very vocal on government obligations, but relatively silent on the consequences of default by the JV. The IMG agreed that the legal consultants need to come up with a fresh document restoring the parity of obligations between the two sides. The PC was also of the view that the contingent liabilities taken by the GoI were far too onerous because of the payments towards termination of the JV's debt, non-transfer assets, and towards equity. This was unlike the typical Build Operate Transfer concessions in other sectors.

Role of Airport Operator

The bid document made it mandatory for participation of an airport operator in the consortium. It was pointed out in the IMG that while there were evaluation points to be awarded to the consortium based on the airport operator's capability, there were issues as to whether and how much equity the operator should hold and the nature of O&M agreement to be entered into between the airport operator and the JV. The bidders could involve an airport operator in the consortium to get past pre-qualification and to score in technical evaluation, but there was nothing to ensure that the airport operator would have any major stake or say in the JV and, therefore, in the management and development of the airport. The PC's view was that the airport operator should have greater and direct responsibility in O&M of the airport and that it should hold at least 10% equity in the JV. The PC also pointed out that the OMDA did not require anything more than providing experienced and skilled staff by the airport operator. According to the PC, the airport operator in the bidder consortium should have been made formally responsible for O&M of the airport.

In the final OMDA, the airport operators were required to hold at least 10% equity, and consequently, were prime members of the JV. They were expected to enter into an airport operator agreement with the JV for an initial minimum period of seven years. The OMDA, however, did not require the JV to entrust any O&M responsibilities to the airport operator member of the consortium. It did not also bind the airport operator member any differently than the other members of the consortium. The OMDA stated that the prime members of the consortium (as opposed to financial investors) would not reduce their stake in the first five years. However, they could sell their stakes to financial investors as long as they continued to hold 10% each and 26% collectively. It was pointed out that this sale condition could be redundant since there were no restrictions on re-sale by financial investors. The final OMDA retained these provisions.

New Competing Airport

Another issue which required the attention of the IMG was related to the conditions spelt out in case any new airport was to come up within 150 km radius of the existing airports. The OMDA envisaged that the right of first refusal (RoFR) for the development of any such new airport project would be with the winner of the current bid. One view was that a competing airport in the vicinity may discourage serious bidders for the current airport. Another view was that bestowing the RoFR would deter other bidders for the new airport. The PC did not favor the RoFR. However, they argued that in the event it was to be provided, it should be applicable only if the JV participated in the bid for the new airport and had its bid within 5% of the highest bidder.

The final OMDA, along with the SSA, provided that in the event the JV of the current airport is not the successful bidder for the second airport coming up within 150 km radius, but its bid is within 10% of the most competitive bid received, the JV will have the RoFR. They would need to match the first ranked bid in terms of the selection criteria for the second airport, provided the JV had satisfactory performance, without any material default under any of the project agreements, at the time of exercising the RoFR.

Mandatory Capital Projects

The RFP envisaged the execution of mandatory capital projects including the completion of those initiated earlier by the AAI, before specified deadlines. Further, development of the airports was to be based on a master plan with triggers for further developments clearly spelt-out. The PC argued that the development of the airports was best when done in phases, with immediate requirements being limited to mandatory projects. The IMG agreed with this view, as it phased out the development of airports and linked it with the need for expansion and development. This, it was argued, would also reduce the pressure on raising tariffs. Earlier, the financial consultant had proposed building in one go for the requirements of 2020.

The final OMDA also provided for penalties in case the bidder/JV failed to undertake projects once triggered or failed to complete them as per the schedule.

Another issue which arose was the extent of mandatory capital projects to be completed within the specified time limit. The PC felt that the list specified by MoCA was on the lower side considering the traffic projected in 2010 and left too much to the discretion of the bidder. Besides the pace of development, there were issues with regard to the treatment of contracts on ongoing projects. In the opinion of the PC, the envisaged process should avoid the contractual difficulties arising out of any reassignment of such contracts. The treatment of these contracts and projects should also not result in any unexpected gain or loss. Otherwise the bidders would be bidding without their liabilities being known ex ante.

Decision Making Process

The process of private participation, which was initiated in 2003, had picked up pace in the last six months with a series of meetings of the IMG and with the release of RFP and other documents in April 2005. There were several issues brought out in the structure envisaged for private participation. Besides the lack of clarity on the tariff regulations coupled with regulatory uncertainties, there were several other concerns associated with the various agreements to be entered into with the selected bidder.

During the decision-making process, one of the members of the IMG felt that the process was being rushed and not enough time was being given to the members to go through the transaction documents. Even when the comments were made by the members, they were not always being recorded with diligence. The minutes and agenda were not finalized in advance and the views of others were not always known to those who attended the meeting.

By the end of this process in August 2005, the member of the IMG representing the PC felt that there were significant infirmities in the RFP and other documents released in April 2005. He felt that the RFP could still be modified since the bids were not yet received, and this would avoid problems in the future. The MoCA, however, felt that too much time was being lost and the entire process has been part of the learning for MoCA. Rather than being 'perfect', it was better to go ahead with the bid.

Suggested Questions for Discussion

- What should be done at this stage?
- What were the major issues pointed out and why did they need to be addressed?
- What are the major learnings from this experience?

Epilogue

On September 14, 2005, five consortiums submitted bids for the Delhi airport, and six did so for the Mumbai airport. The process of private participation ran into problems initially on the technical evaluation of bids. Towards the end of November 2005, after review of technical scores, two bidders,

led by GMR and Reliance, were qualified by the consultants for both the airports. Since only one airport could be awarded to one bidder, both the pre-qualified bidders would have got one airport each. The member from the PC pointed out serious flaws in evaluation. After multiple rounds of meetings at various levels, the evaluation process was reviewed by another committee which qualified only one bidder, GMR, for the two airports.

On January 24, 2006, the EGoM decided on a modified framework for award of the two airports. To ensure competition and better returns to government, the eligibility score was lowered in order to pre-qualify four bidders for each airport. Since GMR was the only qualified bidder as per the initial bid conditions, it was asked to choose one of the two airports provided it matched the highest financial bid among the top four. GMR chose Delhi, with the requirement to increase its revenue share from 43.64% to 45.99%. The Mumbai airport was awarded to the highest financial bidder among the other three, which happened to be GVK, at 38.70%. The award was disputed and appealed at the Supreme Court by Reliance. While allowing the winners, GMR and GVK, to go ahead, the court finally dismissed the appeal on November 7, 2006.

Many issues have arisen subsequent to this process.

In 2008, the Delhi airport JV made an aborted attempt to collect six years' lease rent for hotel sites by way of deposits which were not to be counted as revenue for the purposes of sharing 46% with AAI. These deposits were against lease rentals and would also reduce future rentals to the detriment of AAI share. The prospective hoteliers were also required to pay directly for infrastructure on the hotel sites which meant that they would offer to pay a lower lease rental to the detriment of AAI. Both would have reduced the revenue base and consequently the share of AAI, thus altering the bid terms in favor of the JV. Media exposure led to a rethink and the proposal had to be abandoned.

To develop the land and commercial activities towards the non-aeronautical business, the JV created subsidiaries. A significant implication of this would be that the total revenues of the subsidiary would not be treated as part of the JV's revenue and only the dividend paid by the subsidiary would become the revenue of AAI, thus reducing the revenue base for sharing. This has been seen as a controversial issue.

In terms of capital cost, in the initial bid for Delhi airport, GMR quoted Rs 3,500 crore for phase I development of the project to be completed by 2010. In 2007, as per estimates of GMR, the project cost was US$ 1.5 billion (approximately Rs 6000 crore). As per media reports towards the end of 2008 (Exhibit 5), the cost had risen to Rs 9000 crore. Consequent to this and the other viability issues in terms of traffic demand and costs, the private airport operators appealed for increased revenues. The MoCA had initially approved a 'user development fee' that airports with significant modernization activities could levy on passengers, and subject the same to a revenue share. Given the high revenue shares in Delhi and Mumbai, GMR and GVK appealed on this. The fee was converted to an 'airport development fee', not subject to revenue share. This has also been seen by many as an alteration of the bid terms in favour of the JV.

The structuring and award of PPP projects, especially for such large airports, is very complex and throws up several significant issues. The inter-ministerial consultative processes helped resolve many of these issues while some remained. There was a great deal of on-the-job learning. The outcome is seen as a significant success, despite some nagging concerns.

Exhibit 1: Key Statistics of Airport Traffic

						% Change		
		2004-05	2003-04	2002-03	2001-02	2004-05 to 2003-04	2003-04 to 2002-03	2002-03 to 2001-02
All Airports								
Aircraft movements (thousands)	International	158	133	116	108	18.8	14.7	7.4
	Domestic	572	506	444	402	13.0	14.0	10.4
	Total	730	639	560	510	14.2	14.1	9.8
Passenger movements (million)	International	19.5	16.6	14.8	13.6	17.5	12.2	8.8
	Domestic	40.1	32.1	28.9	26.4	24.9	11.1	9.5
	Total	59.5	48.7	43.7	40	22.2	11.4	9.3
Cargo movement (thousand tons)	International	825	693	646	560	19.0	7.3	15.4
	Domestic	465	375	333	294	24.0	12.6	13.3
	Total	1290	1068	979	854	20.8	9.1	14.6
Delhi Airport								
Aircrafts movement (thousands)		122	106	93	86	15.1	14.0	8.1
Passenger movement (million)		12.8	10.2	8.8	8.2	25.5	15.9	7.3
Cargo movement (thousand tons)		344	296	276	233	16.2	7.2	18.5
Mumbai Airport								
Aircrafts movement (thousands)		153	137	126	115	11.7	8.7	9.6
Passenger movement (million)		15.7	12.8	11.7	11	22.7	9.4	6.4
Cargo movement (thousand tons)		403	326	308	276	23.6	5.8	11.6

[MoCA, Various Years]

Exhibit 2: Aeronautical Services

'Aeronautical Services' means the provision of the following facilities and services:

1. provision of flight operation assistance and crew support systems;
2. ensuring the safe and secure operation of the Airport, excluding national security interest;
3. the movement and parking of aircraft and control facilities;
4. general maintenance and upkeep of the Airport;
5. the maintenance facilities and the control of them and hangarage of aircraft;
6. flight information display screens;
7. rescue and fire fighting services;
8. management and administration of personnel employed at the Airport;
9. the movement of staff and passengers and their inter-change between all modes of transport at the Airport;
10. operation and maintenance of passenger boarding and disembarking systems, including vehicles to perform remote boarding; and
11. any other services deemed to be necessary for the safe and efficient operation of the Airport.

A more detailed list of the above facilities and services would include the following:

12. Aerodrome control services
13. Airfield
14. Airfield lighting
15. Air taxi services
16. Airside and land side access roads and forecourts including writing, traffic signals, signage and monitoring
17. Common hydrant infrastructure for aircraft fuelling services by authorized providers
18. Apron and aircraft parking area
19. Apron control and allocation of aircraft stands
20. Arrivals concourses and meeting areas
21. Baggage systems including outbound and reclaim
22. Bird scaring
23. Check-in concourses
24. Cleaning, heating, lighting and air conditioning public areas
25. Customs and immigration halls
26. Emergency services
27. Facilities for the disabled and other special needs people
28. Fire service
29. Flight information and public-address systems
30. Foul and surface water drainage
31. Guidance systems and marshalling
32. Information desks
33. Inter-terminal transit systems
34. Lifts, escalators and passenger conveyors
35. Loading bridges
36. Lost property
37. Passenger and hand baggage search
38. Piers and gate rooms
39. Policing and general security
40. Prayer rooms
41. Infrastructure/facilities for post offices
42. Infrastructure/facilities for public telephones
43. Infrastructure/facilities for banks
44. Infrastructure/facilities for bureaux de change
45. Runways
46. Signage

47. Staff search
48. Taxiways
49. Toilets and nursing mothers rooms
50. Waste and refuse treatment and disposal
51. X-Ray service for carry on and checked-in luggage
52. VIP/special lounges

[MoCA, 2005a and MoCA 2005b (Schedule 5, OMDA)]

Exhibit 3: Non-Aeronautical Services

'Non-Aeronautical Services' shall mean the following facilities and services (including Part I and Part II):

Part I

1. Aircraft cleaning services
2. Airline lounges
3. Cargo handling
4. Cargo terminals
5. General aviation services (other than those used for commercial air transport services ferrying passengers or cargo or a combination of both)
6. Ground handling services
7. Hangars
8. Heavy maintenance services for aircrafts
9. Observation terrace

Part II

10. Banks/ATM
11. Bureaux de change
12. Business centres
13. Conference centre
14. Duty free sales
15. Flight catering services
16. Freight consolidators/forwarders or agents
17. General retail shops
18. Hotels and motels
19. Hotel reservation services
20. Line maintenance services
21. Locker rental
22. Logistic centres
23. Messenger services
24. Porter service
25. Restaurants, bars and other refreshment facilities
26. Special assistance services
27. Tourist information services
28. Travel agency
29. Vehicle fuelling services
30. Vehicle rental
31. Vehicle parking
32. Vending machines
33. Warehouses
34. Welcoming services
35. Other activities related to passenger services at the airport, if the same is a Non-Aeronautical Asset.

[MoCA 2005a and MoCA 2005b (Schedule 6, OMDA)]

Exhibit 4: Calculating the Aeronautical Charges in the Shared Till Inflation – X Price Cap Model

The revenue target is defined as follows

$$TR_i = RB_i \text{ x } WACC_i + OM_i + D_i + T_i - S_i$$

Where

TR = target revenue,

RB = regulatory base pertaining to Aeronautical Assets and any investments made for the performance of Reserved Activities etc. which are owned by the JVC, after incorporating efficient capital expenditure but does not include capital work in progress to the extent not capitalised in fixed assets. It is further clarified that working capital shall not be included as part of regulatory base. It is further clarified that penalties and Liquidated Damages, if any, levied as per the provisions of the OMDA would not be allowed for capitalisation in the regulatory base. It is further clarified that the Upfront Fee and any pre-operative expenses incurred by the Successful Bidder towards bid preparation will not be allowed to be capitalised in the regulatory base.

WACC = nominal post-tax weighted average cost of capital, calculated using the marginal rate of corporate tax.

OM = efficient operation and maintenance cost pertaining to Aeronautical Services. It is clarified that penalties and Liquidated Damages, if any, levied as per the provisions of the OMDA would not be allowed as part of operation and maintenance cost.

D = depreciation calculated in the manner as prescribed in Schedule XIV of the Indian Companies Act, 1956. In the event, the depreciation rates for certain assets are not available in the aforesaid Act, then the depreciation rates as provided in the Income Tax Act for such asset as converted to straight line method from the written down value method will be considered. In the event, such rates are not available in either of the Acts then depreciation rates as per generally accepted Indian accounting standards may be considered.

T = corporate taxes on earnings pertaining to Aeronautical Services.

S = 30% of the gross revenue generated by the JVC from the Revenue Share Assets. The costs in relation to such revenue shall not be included while calculating Aeronautical Charges. 'Revenue Share Assets' shall mean (a) Non-Aeronautical Assets; and (b) assets required for provision of aeronautical related services arising at the Airport and not considered in revenues from Non-Aeronautical Assets (eg Public admission fee etc).

i = time period (year)

$$RB_i = RB_{i-1} - D_i + I_i$$

Where

RB_0 for the first regulatory period would be the sum total of
(i) the Book Value of the Aeronautical Assets in the books of the JVC and
(ii) the hypothetical regulatory base computed using the then prevailing tariff and the revenues, operation and maintenance cost, corporate tax pertaining to Aeronautical Services at the Airport, during the financial year preceding the date of such computation.

I = investment undertaken in the period

The X factor is calculated by determining the X factor that equates the present value over the regulatory period of the target revenue with the present value that results from applying the forecast traffic volume with a price path based on the initial average aeronautical charge, increased by CPI minus X for each year. That is, the following equation is solved for X:

$$\sum_{i=1}^{n} \frac{RB_i \times WACC_i + OM_i + D_i + T_i - S_i}{(1 + WACC_i)^i} = \sum_{i=1}^{n} \sum_{j=1}^{m} \frac{AC_{i,j} \times Ti,j}{(1+WACC_i)^i}$$

Where

$AC_{i,j}$ = average aeronautical charge for the j^{th} category of aeronautical revenue in the i^{th} year

$T_{i,j}$ = volume of the j^{th} category of aeronautical traffic in the i^{th} year

X = escalation factor

n = number of years considered in the regulatory period

m = number of categories of aeronautical revenue e.g. landing charges, parking charges, housing charges, Facilitation Component etc.

The maximum average aeronautical charge (price cap) in a particular year 'i' for a particular category of aeronautical revenue 'j', is then calculated according to the following formula:

$$AC_i = AC_{i-1} \times (1 + CPI - X)$$

Where

CPI = average annual inflation rate as measured by change in the All India Consumer Price Index (Industrial Workers) over the regulatory period.

[MoCA, 2005c (Schedule 1, SSA)]

Exhibit 5: Raise Airport Charges: GMR, GVK

NEW DELHI: Facing significant revenue erosion because of the slowdown in air traffic, the private players involved in developing Delhi and Mumbai airports sought the government's clearance to raise 10% aeronautical charges along with some other relief. Otherwise, they warned, the development work at both places and the meeting of the all important 2010 deadline in Delhi may suffer.

GMR and GVK airport chiefs Kiran Kumar Grandhi and Sanjay Reddy are learnt to have told aviation secretary M Madhavan Nambiar on Wednesday that the two busiest airports have witnessed a 16% to 18% drop in domestic traffic because of which the revenue from aircraft movement and passengers has declined. The crash in real estate markets has given a blow to the body as the Rs 9,000 apiece projects were to raise Rs 2,700 crore from realty in Delhi and Rs 2,400 crore from realty and income accruals in Mumbai. "The two players asked the government to allow them to raise aero charges by 10% as this is allowed under the agreement. But since this would put additional pressure on airlines, the move has not been allowed so far. They also asked that the shortfall in expected revenue real estate be made good through some other measure. The airport developers cited lower earnings had resulted in banks getting un enthusiastic about lending more to them," said sources. Thanks to the overall liquidity crunch, the two have now dues to the tune of Rs 400 crore from airlines, concessionaires and oil companies.

The developers also raised some other issues with the government. The GMR-backed Delhi airport developer now expects a significant shortfall in the Rs 2,700 crore it expected to raise from its upcoming hotel district. It has sought permission to make good this shortfall through some other way like a levy on passengers.

The GVK-backed Mumbai airport developer had mostly land-related issues. But it had another interesting problem. Some months back, its power connection category was changed from industrial to the more expensive commercial one. As a result of this, its earlier monthly power bill of Rs 5 crore has shot up to Rs 7 crore. They sought the aviation ministry's help on this issue.

A senior ministry official admitted that the developers were in a difficult situation. "The entire aviation industry is in a bind. Passenger numbers have fallen and airlines are under financial stress. Despite reducing fleets, they are incurring huge losses and not paying their charges to airports on time. So the combined impact of a lower revenue and not getting even that on time is hurting the developers," said a senior official.

[ToI, 2008]

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Glossary

AAI	Airports Authority of India
AERA	Airport Economic Regulatory Authority
CPI	Consumer Price Index
EGoM	Empowered Group of Ministers
GoI	Government of India
IMG	Inter Ministerial Group
JV	Joint Venture
MoCA	Ministry of Civil Aviation
O&M	Operations and Maintenance
OMDA	Operation, Management and Development Agreement
PC	Planning Commission
PPP	Public Private Partnership
RFP	Request for Proposal
RoFR	Right of First Refusal
SSA	State Support Agreement