

**DIAL Response to
Consultation Paper
No.05/2014-15**

**In the matter of Normative
Approach to Building Blocks
in Economic Regulation of
Major Airports
Issued on 12th June, 2014**

Response by

**Delhi
International
Airport Private
Limited
Delhi - India**

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LIST OF ABBREVIATIONS

AAI	: Airports Authority of India
AERA	: Airport Economic Regulatory Authority
AERAAT	: Airport Economic Regulatory Authority Appellate Tribunal
AGL	: Airport Ground Lighting
CA	: Concession Agreement
CAA	: Civil Aviation Authority, United Kingdom
CAPM	: Capital Asset Pricing Model
CC	: Commerce Commission, New Zealand
CERC	: Central Electricity Regulatory Commission
COD	: Commencement Operation Date
COE	: Cost of Equity
DER	: Debt Equity Ratio
DIAL	: Delhi International Airport Limited
IRR	: Internal Rate of Return
JVC	: Joint Venture Company
MoCA	: Ministry of Civil Aviation
NHAI	: National Highways Authority of India
NIPFP	: National Institute of Public Finance And Policy
OMDA	: Operation Management Development Agreement
PNGRB	: Petroleum and Natural Gas Regulatory Board
PPP	: Public Private Partnership
ROCE	: Return on Capital Employed
SSA	: State Support Agreement
TAMP	: Tariff Authority of Major Ports
WACC	: Weighted Average Cost of Capital
SBI	: State Bank of India
IMG	: Inter-Ministerial Group
ICB	: International Competitive Bidding
IGIA	: Indira Gandhi International Airport, Delhi
WPI	: Wholesale Price Index
FROR	: Fair Rate of Return
ARR	: Aggregate Revenue Requirement
BOT	: Build Operate and Transfer

I. INTRODUCTION

Airports Economic Regulatory Authority of India 'Authority' has come out with a Consultation Paper No. 05/2014-15 in the matter of Normative Approach to Building Blocks in Economic Regulation of Major Airports.

We welcome the steps taken by the Authority to invite comments and suggestions from the stakeholders.

However, we would like to bring to your notice that applicability of this approach will have various ramifications in view of contractual rights / obligations under existing PPP projects which do not consider the proposals in the Consultation Paper. Thus these proposals will contradict and breach existing contractual terms.

Subject to our aforesaid, we hereby present our comments in the following sections.

We earnestly request the Authority to favourably consider submissions made by us.

II. NO NORMS PRESCRIBED IN THE CONCESSION. NORMS NEED TO BE SPECIFIED AT TIME OF PRIVATIZATION

The Tariff fixation methodology as stated in the State Support Agreement for Delhi Airport does not envisage using norms for tariff determination. As such norms being proposed by Authority will violate the concession agreement.

The use of norms by AERA in the place of detailed examination of individual airport performance is a major change in regulation which was not foreseeable when current privatization took place, and would alter the economic balance of those concessions. While we do not encourage norms for new developments due to various reasons given in subsequent pages of this submission, we re-iterate that norms should not be applied to existing privatized airports.

Even the IMG report as referred by the Authority states:

Airports developed through Public Private Partnerships

"In the case of airports developed through Public Private Partnerships, the project authorities may adopt a case by case approach with respect to norms relating to unit area and unit costs. Based on the judicious consideration of international best practices and financial viability, the norms may be specified in each case prior to inviting bids for private participation."

DIAL's Request:

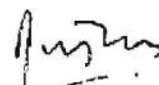
Since the proposed norms were not prescribed at time of privatization of Delhi Airport they will be in breach of contractual obligations and should not be applicable to DIAL.

III. IMG NORMS ARE NOT APPLICABLE TO PPP AIRPORTS

The following is the preface to the IMG report:

The norms and standards specified in the Report of the IMG are expected to serve as a guideline for formulation and implementation

of projects by AAI with a view to ensuring a judicious use of resources as also to ensure that airports of different categories follow uniform norms and standards across the country and are built to world-class standards.



(Gajendra Haldea)

Adviser to Deputy Chairman
Planning Commission

April 20, 2009

The norms and standards specified in the Report of the IMG are expected to serve as a guideline for formulation and implementation of projects by AAI with a view to ensuring a judicious use of resources as also to ensure that airports of different categories follow uniform norms and standards across the country and are built to world-class standards.

Source: http://www.infrastructure.gov.in/pdf/FinalAirport_Terminal.pdf

Conclusion:

Therefore the norms of IMG are not applicable to PPP Airports

IV. PROPOSAL 1 REGARDING DEBT EQUITY RATIO AND WACC

Debt Equity ratio Authority's view.

- a) The Authority proposes to follow a normative debt to equity ratio of 70:30 for the purposes of calculation of Weighted Average Cost of Capital with 30% equity regarded as ceiling and true up WACC at the end of the control period depending on the actual proportion of equity (net worth) in the capital structure (based on the balance sheet numbers from year to year).
- b) The Authority notes that in this approach, truing up is required for
- (i) Debt Equity ratio, and
 - (ii) Cost of debt.

DIAL's Response: Debt Equity ratio not prescribed in the project agreement of DIAL.

No Debt Equity norm has been prescribed in the project agreements of DIAL. Hence this norm should not be made applicable to DIAL as it will be a breach of the concession agreements.

Debt Equity ratio as prescribed in the binding Lenders Agreements:

In matter of Delhi International Airport Ltd, the Lender agreement lays down as under:

8.2 Compliance with all Financial Covenants specified by the Rupee Lenders

- (A) The Borrower shall from April 1, 2010 comply with and maintain the Debt Service Coverage Ratio, to be calculated quarterly on March 31, June 30,

September 30 and December 31 (each a "Calculation Date") of 1.10:1 or more for the previous 12 (twelve) month and subsequent 12 (twelve) Month period. Provided however, that for the period between April 1, 2010 and March 31, 2011, on each Calculation Date, the backward looking Debt Service Coverage Ratio shall be calculated for the period commencing from April 1, 2010 and ending on the Calculation Date. Provided further that where there is less than 12 months to run until the Final Settlement Date, the forward looking Debt Service Coverage Ratio shall be calculated for the whole of such period).

- (B) The Borrower shall maintain a Debt to Equity ratio not exceeding 1.25:1.

Conclusion:

From the above it is clearly evident that a Debt Equity ratio agreed with lenders for IGI Airport, Delhi is that of 1.25:1. A lower debt equity ratio was adopted by DIAL as due to high revenue share, higher debt equity was not acceptable to lenders. Thus adopting a normative ratio will put DIAL into serious financial jeopardy. As the loan gets repaid, this ratio will improve. Therefore, the ratio proposed by Authority cannot be maintained.

Debt Equity Ratio: Practical difficulties in adoption by existing airports

Existing Debt Equity

Changing the current status of Debt Equity would involve refinancing or restructuring of existing debt, which is further subject to approval from the existing lenders and their approvals. Given losses of DIAL, raising increased indebtedness will not be possible.

Lender's Covenants

Generally, Lender agreements for Debt also prescribe certain restriction (such as creation and management of Debt Service Reserve Account) on distributing surplus to equity share holders. These restrictions are there for as assurance of principal and interest repayment in case of default or bankruptcy.

Financial Prudence

The aforesaid proposal of the Authority, clearly miss out on financial prudence check, which suggests to accumulate profits and retain earnings of profitable period to finance any future cash outgo including planned business operation expansions.

By maintaining debt at 70% for all times, may lead to a situation wherein an airport needs funds for business expansion but finding it difficult to get approvals from the existing lenders.

Conclusion:

In view of the aforesaid difficulties, it is not practical to have a norm and in any case this norm should not be applicable to existing airports. The actual Debt Equity of the entity must be considered for tariff determination.

Debt Equity Ratio: Lack of Clarity in Proposal of Debt Equity Ratio

Treatment of Other Project funding sources (Security Deposits)

From the aforesaid proposal, it is not clear how is Authority going to treat the various other sources of funding for an airport infrastructure, for example, Security Deposits from Lease hold properties used for construction of Project or related assets.

Net worth and associated penalties

From the proposal, it appears that Authority while computing Debt Equity ratio is going to consider Accumulated Profits/(Losses) as part of Equity investment in the airport company. Prima facie it appears to be a fine for Equity investors who are retaining their money in the business and getting return on the same, but if the Net Worth of the company is getting eroded due to low returns allowed by Authority it will work as a double whammy for the regulated entity.

In case of DIAL, as of March 2014 company has reported an accumulated loss of approx. INR (970) Crores and the Paid up Capital of INR 2,450 Crores, which means the effective Net Worth is INR 1,480 Crores. Therefore under the proposed norms a loss making entity will incur further losses whereas a profit making entity will have higher return allowed.

Conclusion:

There are various complexities in financing of any airport, which cannot be straitjacketed in an impractical norm and this is best left to financing institutions to decide the optimum funding pattern.

Debt Equity Ratio of Existing Indian Airports

Debt Equity of AAI:

In the Indian Airport scenario, Airport Authority of India is the market leader operating the maximum airports in India and governed by the Indian government is operating at following Debt Equity ratio:

In INR Lakhs	FY2012-13	FY2011-12
Secured loans	51,500.00	81,500.00
Un Secured loans	1,41,218.98	132,723.25
Total Loans	192,718.98	214,223.25
Capital	65,655.65	65,655.65
Reserves & Surplus	817,458.78	761,043.71
Total Equity	833,114.43	826,699.36
Debt to Equity Ratio	0.22	0.26

Source: AAI Reported Financials of FY 2012-13

Overall existing debt equity ratio of Indian Airport industry as a whole:

The Debt Equity ratio computed by Authority in Table 24 of its Order No. 3/2012-13 dated 20th April 2012 for various Indian Airports is as follows:

S.No.	Airport	Debt Equity Ratio
1.	Delhi*	2.11
2.	Mumbai	1.32
3.	Bangalore	4.21
4.	Hyderabad	6.29
5.	Cochin	0.80
6.	Calicut	0.00
7.	Chennai	0.17
8.	Trivandrum	0.00
9.	Jaipur	0.00
10.	Lucknow	0.00
11.	Ahmedabad	0.00
12.	Kolkata	0.05
13.	Guwahati	0.00
	Overall Average	1.17

*Refundable Security Deposits are not included

Another factor to consider would be the ability of the airport to raise higher debt. By adopting 70:30 norm, AERA wants equity to be lower on the assumption that cost of equity in calculation of WACC is higher than that of debt and thus needs to be "rationed".

In doing this, AERA is making a fundamental error in assuming that all airports are equally fundable through higher debt. For e.g. Mumbai and Delhi airport has lower debt equity due to high revenue shares which inhibit their ability to raise higher debt.

Further, the problem is more compounded by the fact that lenders have treated real estate deposits as quasi equity but AERA has not and this issue is in appeal before the Appellate.

Conclusion:

From the above, it is very clear that Industry average of Debt Equity ratio of 1:1 against the prescribed ratio of 2.33:1. Further the range of the ratio is very wide from 0 to 6.29. Thus it would be incorrect to create a normative standard.

Private airport operators would not be prima facie interested in pumping more equity just because of the return being higher. Generally, the private sector projects always endeavour to raise maximum possible debt.

However in case of existing airports actual Debt Equity must be considered for tariff determination while for new projects, it is best left to the market to determine.

Debt Equity Ratio: DIAL's Recommendation

It is best left to the airport and the lenders to decide on the best debt equity ratio for the airport rather than putting a normative ratio which can only hurt the industry.

Adopting one size debt equity to fit all will be retrograde and weaken the financial position of airports considerably.

Thus, the debt to equity ratio should be left to be determined by the market forces and the actual debt equity ratio of the company be considered for tariff determination.

V. PROPOSAL 2 REGARDING FAIR RATE OF RETURN ON EQUITY

fair rate of return on Equity: Authority's view.

a. The Authority proposes to consider fair rate of return on equity (Shareholders funds, sometimes called Net Worth) at 16% as reasonable and on normative basis.

DIAL's Response: Without Prejudice

DIAL in the 1st control period submitted a proposal for revision of tariffs for aeronautical services at IGI Airport, New Delhi. The proposal was based on the principles of tariff fixation provided in the State Support Agreement (SSA).

Based on the submission and various deliberations and consultations thereafter, In exercise of powers conferred by Section 13(1)(a) of the AERA Act, 2008, Authority determined the tariff for 2009-10 to 2013-14 applicable from 15.05.2012 vide its order no. 03 of 2012 -13 dated 20th April 2012.

Being aggrieved by the said order of authority, DIAL filed an appeal in AERA appellate tribunal (AERAAT) vide appeal number 10/2012 (DIAL v/s AERA). Our current response on the aforesaid proposal of the Authority is without prejudice to the matters appealed by us.

Conclusion:

The aforesaid proposal is sub-Judice at AERA appellate tribunal (AERAAT). The Authority should finalize the normative proposals only after a final outcome of appellate tribunal.

Fair Rate of Return on Equity: NIPFP Assumption of Debt Equity Ratio

In matter of Tariff Determination at IGI Airport, Delhi, Authority had appointed National Institute of Public Finance and Policy (NIPFP) for deciding on Fair rate of return on Equity based on this a fair return of 16% on equity was allowed at Delhi Airport. Notably, NIPFP in their response on DIAL Comments to Consultation Paper No. 32 and SBI Caps report which was used by Authority and published as Annexure 1 to their Order No. 3/2012-13 dated 20th April 2014 has stated:

"The normative DER of airport companies in India is likely to be somewhere between the estimates from foreign airport companies and the Indian infrastructure companies, because the normative DER is dependent on both the nature of the airport business as well as the practice of infrastructure financing in India. We recommend AERA to consider a normative DER somewhere in this range. AERA can consider 1.2 as the normative DER."

Conclusion:

From the aforesaid, it is evident that AERA's proposal 2 of Fair return at 16% is based on debt equity of 55:45. This is in contradiction of proposal 1 for Debt Equity ratio at 70:30. The Authority is earnestly requested to use the actual debt equity of each entity and work out the cost of equity rather than fixing any norms as the risk profile and leverage of each entity is different.

Fair Rate of Return On Equity: NIPFP Return Updated Based On Actuals

While determining a Fair rate of equity return for Airports, the Authority had relied upon NIPFP report.

The said study was first done in 2010 while determining tariff for Delhi Airport. If the same study is updated, based on the actuals available, the outcome would be as show in the table below. And if this calculation will change further if we use latest Bloomberg data in Asset Betas of both developing/developed countries. The comparison of revised calculation is show in the table below.

The Effect of Leverage on the Cost of Equity

The Table below shows three different scenarios of determining cost of equity:

1. Case 1 shows the change is COE on account of change in debt equity at 70:30, keeping all other components constant;
2. Case 2 reflects change in COE due to change in debt equity to 70:30 and a higher beta at 0.72, keeping all other constituents constant;
3. Case 3 shows the overall impact considering debt equity at 70:30, beta at 0.72 and Rfr and 8.5%, keeping all other variables constant.

In the left hand column, base case, is the cost of equity with assumptions adjusted to produce a cost of equity of 16% under the normative debt: equity ratio of 1.2 proposed by NIPFP.

In Case 1, the assumptions are identical but an adjustment has been made to equity beta to reflect the new debt proportion of 70%. The formula for this adjustment is given on Page 21 of the 2012 NIPFP report 'Cost of Equity for Private Airports in India Comments on DIAL's response to AERA Consultation Paper No. 32, and the report by SBI Caps'.

In Case 2, the effect is illustrated of moving from asset levels restricted to mature economies (principally European, Australasian and Japanese) to betas drawn from the full range of quoted airport companies. There is a strong case for using betas based on emerging economies, (0.82) however this has not been incorporated into these illustrative figures.

In Case 3, in addition to the assumptions considered under case 2, Rfr has also been updated to reflect the current rate on Yield on 10 year Govt Bond.

Factor	Equation	(Base Case) Debt 54.5%	(Case 1) Debt 70%	(Case 2) Debt 70% plus higher beta	(Case 3) Debt 70% plus higher beta Plus revised existing RFR
Tax		34%	34%	34%	34%
Risk Free Rate	R	7.50%	7.50%	7.50%	8.5%
Risk premium	ERP	8.60%	8.60%	8.60%	8.60%

Asset Beta	Ba	0.55	0.55	0.72	0.72
Debt	D	54.5%	70%	70%	70%
Equity	E	45.5%	30%	30%	30%
D/E	D/E	1.20	2.33	2.33	2.33
Leverage Factor	$L = 1 + D/e \times (1-t)$	1.79	2.54	2.54	2.54
Equity beta	$Be = Ba \times L$	0.98	1.40	1.83	1.83
Cost of Equity	R+Be X ERP	16.0%	19.5%	23.2%	24.2%

Conclusion:

From the above, it is evident that even if the study considered by Authority is revisited and updated based on the actuals available. The Fair Rate of return on Equity would work out

19.5%	: If we update the debt equity structure as proposed by authority
23.2%	: if beta is changed to the latest beta and
24.2%	: if the Risk free rate is updated.

Fair Rate Of Return On Equity As Advised By Various Consultants

Following is a comparison of Fair rate of equity return computed by various consultants appointed by various Industry and Ministerial Bodies:

Details	NIPFP (AERA)		KPMG (APAO)			SBI Caps (MOCA)	Jacobs (DIAL)
	Normative D/E	D/E on Market Value	D/E at 1	D/E at 1.5	D/E at 2		
Risk free rate	7.23%	7.23%	7.83%	7.83%	7.83%	7.19%	8.3%
Asset Beta	0.55	0.55	0.8	0.8	0.8	0.71	0.8
Debt/Equity (D/E)	1.2	0.47	1	1.5	2	1.5	1.98
Levered Beta	0.99	0.72	1.34	1.60	1.87	1.42	1.9
Eq. Risk Premium	6.10%	6.10%	9.33%	9.33%	9.33%	8.62%	9%
Equity Cost	13.3%	11.6%	20.2%	22.7%	25.1%	19.5%	25.1%

Conclusion:

From the above it is evident that barring NIPFP, none of the Consultant has computed an Equity Cost of less than 19.5%. So Authority is earnestly requested to consider a more appropriate fair rate of equity return which is closer to industry standards and averages.

Fair Rate Of Return On Equity: DIAL's Suggestion

The current return on Equity is very low and has resulted in a negative return to DIAL. This will mean that DIAL will not be able to viable with a 16% return on equity. AERA under section 13 (1) (a) (iv), Authority needs to ensure economic and viable operation of the airport:

CHAPTER III		
POWERS AND FUNCTIONS OF THE AUTHORITY		
Functions of Authority	13.	(1) The Authority shall perform the following functions in respect of major airports, namely:— (a) to determine the tariff for the aeronautical services taking into consideration— (iv) economic and viable operation of major airports;

As such, it is earnestly requested that the Authority needs to increase the current return on equity of 16% to ensure economic viability of the Airport.

VI. PROPOSAL 3 REGARDING USEFUL LIFE OF ASSETS AND DEPRECIATION

a. The Authority proposes to lay down, to the extent required, the depreciation rates for airport assets, taking into account the provisions of the useful life of assets given in Schedule II of the Companies Act 2013 (Act 18 of 2013), assets that have not been clearly mentioned in the Schedule II of the Companies Act or may have a useful life justifiably different than what is indicated in the Companies Act, 2013 in the specific context to the airport sector. The Authority has initiated the process to enable it to issue a notification as appropriate, pursuant to the provisions Part B of Schedule II of the Companies Act 2013 for this purpose.

DIAL's Response:

As of now, we are agreeable to go ahead with the depreciation rates as quoted in New Companies Act, 2013. However, as and when the Authority proposes new depreciation rates for various airport assets not prescribed in the New Companies Act, 2013, we request that Authority should provide appropriate time and opportunity to provide our response on the revised life proposed.

VII. PROPOSAL 5 REGARDING NORMS FOR CAPITAL EXPENDITURE

Authority's Proposal

- a. The Authority expects that while finalising the scope of future capital works the Airport Operator would abide by the indicated norms. As illustration,
 - i. IMG Norms for Terminal Building (for e.g., 25 sq. mts. per passenger for Integrated Terminal Building
 - ii. Design criteria for Runway / Taxiway/ Apron (Airside works) as may be available in published literature on the subject (ICAO Documents, DGCA CARs as may be applicable)
- b. The Authority proposes to consider capital costs of terminal building at a ceiling cost of Rs. 65,000 per square meter or actuals whichever is lower.
- c. The Authority proposes to consider capital costs of Runway/Taxiway/ Apron at a ceiling cost of Rs. 7,000 per square meter or actuals whichever is lower (excluding earthwork up to the sub grade level). The expenditure on the earthwork will be carried out as per the CPWD methodology.
- d. The Authority proposes to consider the capital costs of other works based on a publicly available standard like the CPWD methodology (for Scheduled items CPWD schedule rates and for Market Items proper market rate analysis in line with CPWD framework and methodology).

DIAL's Response: Norms for Capital expenditure were not prescribed in the project agreement of DIAL.

No norm for the AREA/PHP or Capital Cost was prescribed in the project agreements and hence the same should not be applicable to DIAL.

DIAL Project agreements on Construction, development and Quality

The Operation, Development and Management Agreement (OMDA) in matter of Delhi Airport clearly states the following arguments for development of the facility at IGI Airport, Delhi:

Chapter 8 Construction/Development, Operation and Management, Para 8.1 (i)

"JVC shall at all times comply with Applicable Law in the operation, maintenance ... and management of the Airport. JVC shall operate, maintain, ... and keep in good operating repair and condition the Airport, in order to ensure that the Airport at all times meets the requirements of an international world class airport. The JVC shall further operate, maintain ... and manage the Airport in accordance with Good Industry Practice and, in accordance with the Development Standards and Requirements; and Operation and Maintenance Standards and Requirements and renew, replace and upgrade to the extent reasonably necessary ..."

Chapter 9 Service Quality requirement and development standards, Para 9.1

"It is the intention of the Parties that the JVC shall operate, maintain ... and manage the Airport to bring it to and maintain it at a world class standard for major international airports in terms of the quality of the facilities, airport management and the quality of service provided to all airport users."

Subjective Service Quality Requirements

(a) Requirement

...

(iii) JVC shall ensure that ... the JVC achieves a rating of 3.75 in the IATA/ACI AETRA passenger surveyor greater and maintains the same throughout the Term.

9.1.4 Development Standards and Requirements

(a) Requirement

It is the intention of the Parties to achieve a world-class airport with world-class facilities. The design, construction ... operation of the Airport ... will comply with all appropriate technical requirements as set out in international, national and local standards and laws and in particular will comply with the requirements set out in Schedule I.

9.1.6 In the event the AAI believes that some of the measures or targets mentioned in any of Schedules 1, 2 or 3 should be revised or changed for any reason, it shall provide a full written explanation of its proposals to be, and the Parties shall mutually consult with each other to determine if any changes to the said measures or targets should be made.

SCHEDULE 1

DEVELOPMENT STANDARDS AND REQUIREMENTS

The design of all airport facilities is to comply with all appropriate technical requirements, including the following:

DEVELOPMENT PLANNING PRINCIPLES

General:

- *Move to common user terminals*
- *Use of swing gates to economise on number of gates*
- *Incorporate reservation for rail link*
- *Maximum aeronautical capacity for the airport area*
- *All facilities capable of 24 hour operations*
- *All plans incorporate mandatory capital projects*

Terminal design must be capable of incremental expansion with minimum impact on current operations

Terminal planning criteria to be in accordance with recommendations contained in the IATA Airport Development Reference Manual - 9th Edition, January 2004 and as amended from time to time

In respect of quality standards with regard to any facility at the Airport, the benchmarking will be the prevailing quality standards as observed in the top five international airports in the Asian region (as ranked on AETRA or analogous rating) of a similar scale and size.

Conclusion:

At the time of privatization of Delhi Airport, it was envisaged that Delhi Airport Facility should be of world standards and should at least match with top five international airports in the Asian regions. Facilities of world standards are capital intensive. Therefore, Authority's proposal of capping the terminal capital cost would be a hindrance for future expansion at IGI Airport, Delhi.

Further, the Project agreement clearly states to follow IATA Airport Development Reference Manual (as updated from time to time) for development and designing of facilities at IGI Airport, Delhi. Therefore, Authority's proposal to follow IMG Norms or other manuals for development and designing is contradicting the agreement terms. It is therefore submitted that Authority should adhere to the project agreement, as even the AERA Act Section 13(1)(a)(vi) states "the concession offered by Central government in any agreement or MOU or Otherwise" would be considered while determining tariff.

IMG Report: Unit Cost of Construction Should Be Decided On Case To Case Basis

As regards to unit cost of construction IMG Report lays down as under:

"F. Unit Cost of Construction

In an airport terminal, the cost of construction is driven by 'facilities' and 'finishes'. It is, therefore, imperative for planners to achieve a judicious balance between design specifications and costs associated with each element. 'Value for the Money should be the motto'.

Since the architects, project engineers and contractors of a project may have the tendency to overdesign and use expensive finishes, there should be some institutional check and balance for specifying an indicative/ benchmark unit cost within which an airport should be designed and constructed. The cost of construction is, however, dependent upon various variables.

It is easily impacted by locational factors. Therefore, it may not be possible to lay down any general norms in this regard. It is, at the same time, important to benchmark the cost of construction across projects being implemented with similar planning horizon. IMG is of the opinion that for appropriate benchmarking, an in-house appraisal mechanism could be established in the Ministry of Civil Aviation. The Appraisal Committee established by MoCA should assess the reasonableness of the proposed unit cost of Airport Terminals costing more than Rs. 150 Crore.

The Appraisal Committee should specify the ceiling unit cost and the architects/engineers of AAI should plan and implement the project within the ceiling, subject to revision on account of increase in WPI."

Conclusion:

- 1 There can be no fixed norms for unit cost of construction
- 2 There cannot be a benchmarking exercise for the new developments.

As such, it is earnestly requested that the existing system of reviewing and approving project cost by way of consultation and audit is the best system for determination of project cost. And the same may be continued for future as well

In case of DIAL, the project cost was audited by

1. Technical Auditor, Engineers India Limited
2. Financial Auditor, KPMG

Thereafter the Authority had put up the project cost for User Consultation, wherein, the views of all stakeholders were received and based on the above, the project cost was approved. Above system is a very robust and comprehensive mechanism and the same may be continued for future projects as well.

Norms To Be Worked As A Guide And Not For Penalizing

The following is the extract of the IMG report:

"For rationalizing the capital costs of airport expansion and at the same time providing world-class services, it was felt that norms and standards may be evolved and adopted so as to serve as a guideline for formulating projects and for appraising and approving the same."

Conclusion:

The norms meant for AAI are also to work as a guiding factor and not a penalizing provision.

IMG Report: Norms Should Be Decided Before Inviting Bid For Privatization

The following is the extract from IMG report:

" Airports developed through Public Private Partnerships

In the case of airports developed through Public Private Partnerships, the project authorities may adopt a case by case approach with respect to norms relating to unit area and unit costs. Based on the judicious consideration of international best practices and financial viability, the norms may be specified in each case prior to inviting bids for private participation."

Source: http://www.infrastructure.gov.in/pdf/FinalAirport_Terminal.pdf

Conclusion:

In case of PPP projects norms need to be decided before the bids are invited. As such, it is earnestly requested that Authority should not fix these norms for the existing privatizations.

Capital Cost As Approved By AERA

From the various capital cost approved by AERA in past and as complied in Table No. 5 of the Consultation Paper, following is a quick analysis on the same:

S.No.	Airport	Area of Terminal (Sq. metre)	Cost of Building (INR Crore)	Terminal Building Cost /Sq.mt
1	Bangalore – Terminal 1 Expansion	85,000	1,235	1,45,318
2	Guwahati Terminal Building	2,005	27	1,33,815
3	Trivandrum – Integrated Terminal Building	23,000	289	1,25,652
4	IGI Airport, Delhi - T3 & Associated Buildings	5,53,887	6,836	1,23,419
5	Chennai –Integrated Terminal Building	1,33,142	1,547	1,16,156
6	Mumbai - Terminal 2, MLCP & Access roads	4,39,512	5,083	1,15,650
7	NSCBIA, Kolkata –Integrated Terminal Building	1,98,692	1,553	78,167

8	Cochin – New Terminal proposed	1,50,000	650	43,333
	Average			110,189
	Weighted Average			110,015
	Median			119,788

Conclusion:

On a closer look to the Capital cost numbers as approved by the Authority, except Cochin Airport all other airports have a cost higher than the proposed cost for a Terminal Building. Even the Weighted average of all the approved cost is almost double the proposed capital cost for a Terminal Building.

Also note that Terminal of Cochin Airport is still under planning stage and it is yet to be capitalized. If the same is excluded from the above sample, then the averages would be as follows:

S.No.	Airport	Area of Terminal (Sq. metre)	Cost of Building (INR Crore)	Terminal Building Cost /Sq.mt
1	Bangalore – Terminal 1 Expansion	85,000	1,235	1,45,318
2	Guwahati Terminal Building	2,005	27	1,33,815
3	Trivandrum – Integrated Terminal Building	23,000	289	1,25,652
4	IGI Airport, Delhi - T3 & Associated Buildings	5,53,887	6,836	1,23,419
5	Chennai –Integrated Terminal Building	1,33,142	1,547	1,16,156
6	Mumbai - Terminal 2, MLCP & Access roads	4,39,512	5,083	1,15,650
7	NSCBIA, Kolkata –Integrated Terminal Building	1,98,692	1,553	78,167
	Average			119,740
	Weighted Average			115,449
	Median			123,419

Further, we would like to bring into Authority's notice that the terminal cost considered by the Authority in the consultation paper lacks consistency and needs correction to reflect the true and factual picture. A review of the actual terminal cost considered by the regulator in the past for various airports is as follows:

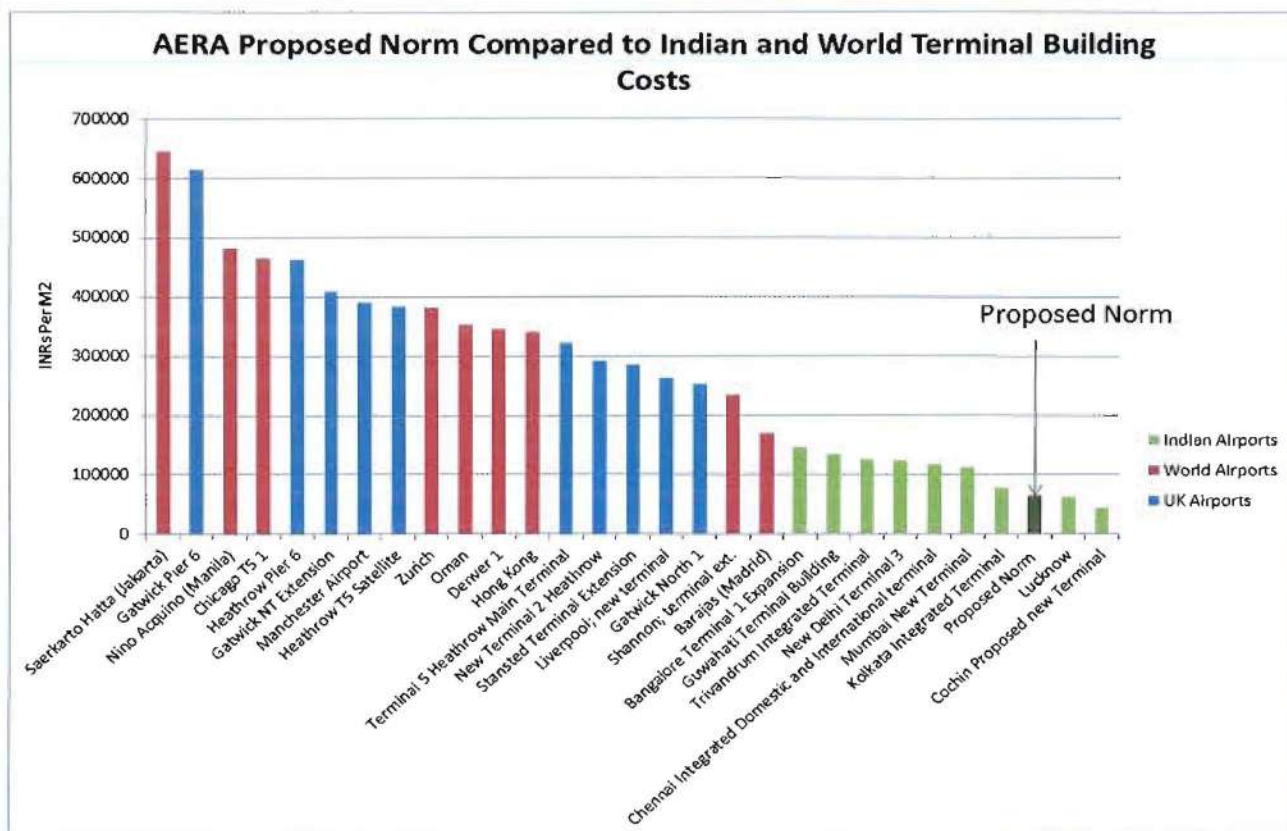
Kolkata Airport	
Cost Considered by Authority in CP No. 5	1,553 Crores
Cost Considered in the Order No. 35 2012/13	2,325 Crores
Cost per sqm considered in CP No.5	78,167
Cost per sqm as per Order No. 35 2012/13	1,17,015
Upward change in the per sqm cost	INR 38,848

In case of Chennai Airport, several necessary equipments are still being installed. As per the press release in July 2014, the Chennai airport was looking to add baggage ramp. This reflects that the project

cost for the airport is not yet finalized. There may be additional packages which will add to the actual total cost but not considered in the terminal cost considered by the authority.

Capital cost –International Precedence

A view on the capital cost in International setting reflects that the norm proposed by AERA at INR 65,000 is only 10% of the price per sqm considered for Gatwick Pier 6 (peak of the sample considered in the chart below) and 40% for Barajas – Madrid (lowest in the sample)



Source: Leigh Fisher Benchmarking Report on Capital Cost submitted by DIAL during 1st Control period.

Conclusion:

We suggest that AERA to take a holistic view and be in cognizance of capital costs considered globally. The entire world is now moving towards creating world class airports. Putting a norm on the capital cost would put an end to journey of growth in the airport sector.

Comparison Of Airport Facilities At Existing Airports

Following is a quick comparison of facilities and capacities of various Indian Airport:

FY13	Unit	Kolkat a	MIA L	BIA L	CIAL	Chenna i
Annual Passenger Capacity	MPPA	24	30	12	10	23
Annual Cargo Capacity	000'tonne	130	150	350	100	1000

	s	0				
Terminals	No.	3	4	1	2	4
Runways	No.	2	2	1	1	2
Aerobridges	No.	18	18	8	5	18
Parking Bays	No.	53	100	42	16	85
Check in Counters	No.	128	309	53	65	197
Employees	No.	1147	136	800	512	1093
			6			
Ground Handling Companies	No.	2	3	3	2	2
Cargo Handling Companies	No.	2	2	2	1	2
					(In-house)	
No. of Scheduled Airlines Operating from airport	No.	26	53	31	18	27

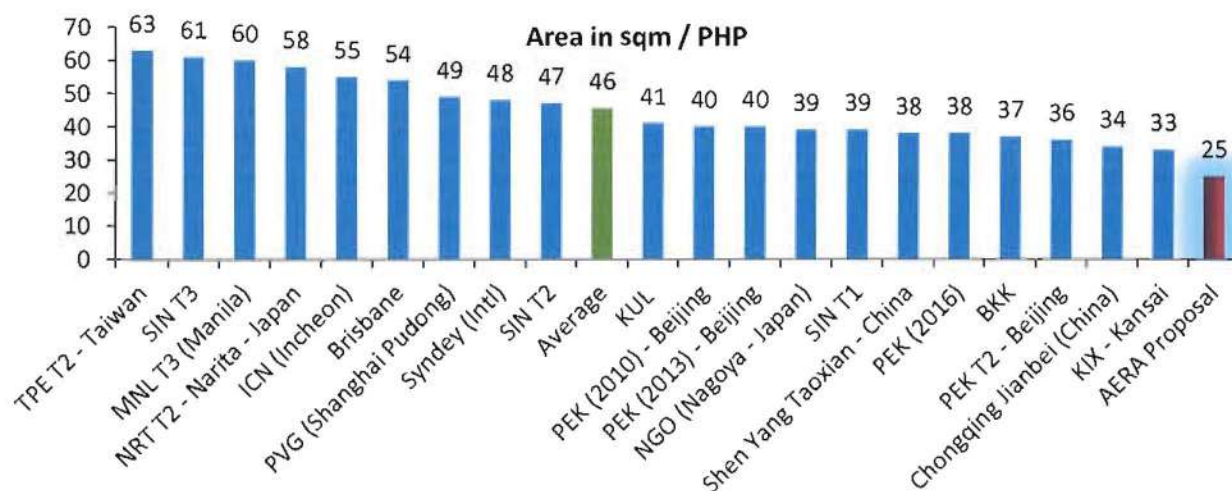
Source: CAPA India Aviation Outlook 2013/14

Conclusion:

From the above, it is evident that no two airports are comparable in terms of facilities provided to stakeholders at the airport. And there can be several other differentiating factors too, so comparing the cost of construction of various airports would be inappropriate.

The Proposed Norm On Area / PHP Is Very Low Compared To International Airports

AERA has proposed a norm for 25 area per sqm / peak hour passenger (PhP). Comparing the rule with the comparable airports in the Asian region gives average close to 46 area (in psqm)/PhP.



Source: Leigh Fisher Benchmarking Report on Capital Cost submitted by DIAL during 1st Control period.

Conclusion:

DIAL has to maintain quality levels equivalent to the best airports in Asia. However, the proposed ratio by AERA is very low than the average of comparable airports in the Asia - Pacific region. We understand the proposed ratio, if implemented, will lead to airport congestion and tumble in the quality standards.

The entire premise of airport privatisation to create world class airports will be neglected in entirety. Hence, we recommend that authority consider the ratio at least close to comparable airports.

Capital Cost Norms In Other Sectorial Regulators

Power

On 04 April, 2012, the Power regulator Central Electricity Regulatory Commission (CERC) in the matter of benchmarking capital cost for Thermal Power Stations with Coal as Fuel via Order No. L-1/103/CERC/2012, appointed a consortium of consultants {M/s Evonik Energy Services (India) Pvt. Ltd; M/s Power Research and Development Consultants (in short PRDC), and M/s Klynveld Peat Marwick Goerdeler (in short KPMG)} were engaged with the objective of developing benchmark norms for capital cost of thermal power units. The methodology followed by the consortium is as follows:

- Source reliable available data,
- Analyse the data,
- Create a data base,
- Define Disaggregated Packages of Hard Cost of a Project,
- Recommending appropriate methodology through which a benchmark capital cost of a completed project would be arrived at for the purpose of prudence check
- Develop financial/pricing model with identified escalation factors assigning due weightage for various materials/factors etc.

The financing cost, interest during construction, taxes and duties, right of way charges, cost of Rehabilitation & Resettlement etc. would be additional and were not to be factored in benchmark cost being developed. The model so developed was to be validated based on the historical data from the database. The order also clarified:

That the proposed model for capital costs is not intended to replace the price discovery based on International Competitive Bidding (ICB) tendering process. Model is broad based for defined boundaries. It provided that model or the benchmark numbers so derived from the model are intended to be used for the purpose of prudence check as provided in 2009 Tariff Regulations.

In the clarification no. 10.1 that any deviation on account of specific issues related to various costs of civil works will may be dealt on case to case basis at the time of prudence check.

Conclusion:

CERC while determining a benchmark capital cost had appointed three industry expert consultants namely, M/s Evonik Energy; M/s PRDC; and M/s KPMG to determine the benchmark cost. However, Authority has not shared any such details of study by any consultant.

Secondly, the benchmarking of capital cost is done only for hard cost and it does not include soft costs such as, financing cost, interest during construction cost, taxes and duties etc. And lastly, the aforesaid benchmark is only for prudence check and if the price is determined through International Competitive Bidding then the prudent cost is not to override the determined cost.

Further it is important to note that having a guideline on cost is possible in power sector as there is a fair degree of uniformity in the sector. However airports vary significantly in characteristics and cost variations can be large as seen in aforesaid tables. Hence having a norm in the airport sector will be impractical and put various airport operators in financial jeopardy.

Benchmarking Based On Single Airport

The proposed norm at INR 65,000 seems to be drawn from the estimated cost of New International Terminal at Cochin Airport. However, the authority has ignored critical areas while basing its decision:

1. The proposed cost is for a future development. Authority has ignored all other developments of the past and relied only on one development which is incorrect.
2. Authority may take a notice that the INR 45,000 per sqm. is the estimated cost. The actual cost may be substantially higher than the initially estimated costs, as much prevalent in the infrastructure projects.
3. Cochin Airport is not governed by any concession agreement, unlike other private operators who have to abide by the terms signed in the project agreements. The project agreements lay down the conditions which entail substantial project costs to be incurred:
 - a. In case of DIAL, it has to be one of the top five International airports in the Asian region.
 - b. It has to maintain 3.75 on the IATA/ACI AETRA passenger surveys, while Cochin is not mandated to maintain such quality ratings
 - c. Additionally, as per schedule 3 of the concession agreement, DIAL has to ensure:
 - i. Lifts, Escalators to be available at 98%
 - ii. 90% of domestic and International passengers should use Passenger Boarding Bridges.
 - iii. 95% of passengers should wait less than 10 minutes for security check
4. It may be noted that the estimated cost by Cochin Airport may not represent the full cost at the time of completion of the project.
 - a. Out of the total area at 150,000 sqm originally estimated in the project plan, they might initially develop only 50 – 60% of the total area;
 - b. Instead of 112 check in counters proposed, they may initially operationalize half of the proposed counters only;
 - c. Out of 15 Passenger Boarding Bridges, they may start with few of them only.
5. Authority may also notice that proposed terminal at Cochin Airport will majority be a concrete structure, which entails comparatively lesser costs. Additionally, it may also be noted their expenditure on finishes is the balancing figure, which means any escalation in the project cost is adjusted towards reduction in the terminal finishes. However, in case of DIAL, it has to follow the terms laid down in the concession agreement and has no scope of manoeuvring with the project plan.

In the purview of the above, we view that Authority has considered a projection to arrive at the norm and ignored the various other cost samples available for domestic and International Terminals.

Proposal 5 –Regarding norms for Capital Expenditure: DIAL Suggestion

As such, it is earnestly requested that the existing system of reviewing and approving project cost by way of consultation and audit is the best system for determination of project cost. And the same may be continued for future as well

In case of DIAL, the project cost was audited by

1. Technical Auditor, Engineers India Limited
2. Financial Auditor, KPMG

Thereafter the Authority had put up the project cost for User Consultation, wherein, the views of all stakeholders were received. Based on the above, the project cost was approved.

Similar approach was adopted for MIAL and BIAL as well. Above system is a very robust and comprehensive mechanism and the same may be continued for future projects as well.

III. AERA PROPOSAL ON AERONAUTICAL AND NON AERONAUTICAL ASSET AND OPEX ALLOCATION

- a. The Authority proposes to make the aeronautical and non-aeronautical asset allocation (wherever necessary, refer Para 8.3) in 80:20 ratio for the Terminal Building and common use assets.
- b. The Authority proposes to consider the cost of Airside operational assets (including operational boundary wall and roads) that are meant for aeronautical services.

- a. The Authority proposes to make the allocation of O&M expenditure between aeronautical and non-aeronautical services (wherever necessary) in 80:20 ratio.

DIAL's Response: Allocation ratio is not prescribed in the project agreement of DIAL.

No allocation norm has been prescribed in the project agreements of DIAL. Hence this norm should not be made applicable to DIAL. This will be a violation of the concession agreement.

IMG Report: Norms Should Be Decided Before Inviting Bid for Privatization

The following is the extract from IMG report:

"Airports developed through Public Private Partnerships

In the case of airports developed through Public Private Partnerships, the project authorities may adopt a case by case approach with respect to norms relating to unit area and unit costs. Based on the judicious consideration of international best practices and financial viability, the norms may be specified in each case prior to inviting bids for private participation."

Source: http://www.infrastructure.gov.in/pdf/FinalAirport_Terminal.pdf

Conclusion:

In case of PPP projects norms need to be decided before the bids are invited. As such Authority earnestly requested not to fix these norms for the existing privatizations.

IMG Report in its Unit Area Norm has stated following (Para E):

"Overall space/area norm should be such as to provide a reasonable level of service for all components require in Terminal Building. Commercial or Retail area providing amenities like food and beverages, book shops, counters for car rental, vending machines, public rest rooms etc. normally require 8-12% of overall area, and should be planned and provided accordingly. In bigger airports, i.e., with annual passenger traffic exceeding 10 million, commercial area could be up to 20% of overall area."

Conclusion:

IMG report prescribes a normal ratio of 8-12%. This could go up to 20%.

As such, it is incorrect to adopt a ratio of 20% which is the highest possible as per IMG report.

Aeronautical and Non Aeronautical Asset Allocation: IMG Report Do Not Prescribe 80:20 Ratio, It Gives a Range

The asset allocation (in case of DIAL) was based on area allocation exercise carried out by consultant and as per the provisions of OMDA.

Assets which were directly identifiable and primarily used for Aeronautical and Non-Aeronautical services were tagged accordingly. For e.g. Runway, aprons, taxiways, fire station, ARFF vehicles, roads etc. were all classified as Aeronautical. Conversely, assets representing investment into surface car park, upgrade of cargo terminal etc. were all classified as Non-Aeronautical.

In case of assets having common use like passenger terminal buildings etc., the areas in the respective passenger terminal buildings (at each floor level) were allocated, into aero and non-aero, based on their underlying/ designated usage. The areas in the terminal were identified (based on the latest available CAD drawing) and earmarked first into Aeronautical and Non-Aeronautical and thereafter aggregated for each of these segments. In case of common areas, the consultant made independent assumption based on accepted world-wide precedence in other regulatory determinations for airports.

The allocation had been carried out in accordance with the categorization of services as per Schedule 5 & 6 of OMDA.

Conclusion:

As such it is earnestly requested that the Authority should rely on this scientific methodology and get is reviewed rather than following a normative approach. This is in line with internationally accepted practice as submitted to the Authority earlier, during the tariff determination of 1st Control period for IGI Airport, Delhi.

Average Ratio of Industry

The actual experience of Indian Airports suggests that actual allocations are significantly lower than the 20% suggested by AERA. The terminal area allocation figures are shown below:

Table Non Aeronautical Proportion of Floor Area

Airport	Aeronautical	Non-Aeronautical
Delhi	84%	16%
Mumbai	84%	16%
Bangalore	86%	14%

Authority in its consultation has acknowledged that the current level of space it has observed is around 85% aeronautical: 15% non-aeronautical.

These figures are also fully consistent with the suggestions of the IMG, though lower than highest 'aspirational' end of IMG's range.

Conclusion: The current allocation ratios are within the range given in the IMG report and as such no norm should be prescribed to penalise the airport operator.

Proposal 6 And 7 – DIAL's Suggestion

We would like to submit that IMG report has indicated a range for average commercial usage at airports, which goes to show that Commercial area at Airports varies a lot. Therefore, it is suggested that Authority should not create a benchmark for allocation and at least not the highest from the range suggested by IMG report.

Instead, Authority should follow the internationally accepted methodology of allocation for each airport which was adopted by DIAL as well.

In case of DIAL a scientific methodology of usage of area was adopted. Therefore, it is submitted to continue with the process already being followed by the Authority. There should be no fixed norm and the allocation ratio should be determined for each airport separately.