DELHI INDIRA GANDHI INTERNATIONAL AIRPORT

Delhi International Airport Limited
(Formerly known as Delhi International Airport (P) Limited)

GMR

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Letter No.: DIAL/2020-21/Regulatory/262
Dated: 31st July 2020

To,

The Director
Policy & Statistics
Airports Economic Regulatory Authority of India
AERA Building, Administrative Complex
Safdarjung Airport
New Delhi - 110003

Subject: Response to Consultation Paper for third control period
Reference: Consultation Paper No. 15/2020-21 dated 9th Jun'2020

Dear Sir,

This is with reference to the consultation paper issued for the determination of Aeronautical tariff for Delhi International Airport for the third control period (1st April 2019 -31st March 2014), please find our detailed response attached herewith as Exhibit-1.

Thanking you

Yours Sincerely

For Delhi International Airport Ltd.

NARAYANA RAO KADA

Digitally signed by NARAYANA RAO KADA
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K Narayana Rao
Director

Encl.- Exhibit-1

Delhi International Airport Ltd.
Indira Gandhi International Airport
New Delhi

Response to Consultation Paper No. 15/2020-21 Dtd. 9th Jun'2020

Contents

1 Business impact of COVID

1.1 Traffic impact

Delhi Airport is connected to 78 destinations domestically and 71 destinations internationally. Given its hub status for domestic and international traffic for India, IGI Airport is being severely impacted in terms of scale of business / traffic by outbreak of COVID pandemic globally. COVID-19 has a profound impact on the traffic forecasted by DIAL.

The traffic had come to a total standstill with the government restrictions on domestic as well as international flights in India. The government had lifted restrictions partially on domestic flights from 25 May 2020. However, the demand as seen in the recent past has been highly muted. The plight of international flights is not known to the DIAL yet which would be contingent on the government decisions based on the level of spread of COVID-19 disease. It is felt that due to the pandemic similar muted trend could be observed even if the international operations will start. The pandemic has also affected the economic situation at large constraining the disposable incomes, hence it may also be perused that the spend on travel would be much less even after the lifting of restrictions on air travel as well.

The intensity and duration of impact of COVID -19 on the travel industry is predicted to be far deeper and longer. The traffic as considered by AERA in the consultation paper which was the pre-COVID estimation by DIAL, will not be materializing given the slow start and the prevailing trend of COVID condition, which is going to stay for some time. Further the government decisions in India and abroad to release the restrictions on the traffic will play a major role in determination of the traffic for the control period. Given the restrictions and to assess the traffic impact, DIAL has also gone through the reports of reputed experts in the field, which are listed below:

i. **ICF:** ICF, a global consultancy firm recently published a report covering air passenger recovery phases and forecast. As per the report the complete recovery of passenger traffic will be contingent on how soon the world can recover from the COVID pandemic. The earlier the recovery phase, better the chance of traffic revival.

   The financial crisis due to COVID-19 is more often compared with the financial crisis of 2008-2009, however the COVID-19 crisis has much deeper impact because it has not only affected the demand but also effected the consumer behavior and it totally changes the way the corporates and people would now spend. Following are the key aspect of the difference mentioned in the report:

   - ***Severe global impact*** *- Aviation activity has shut down on a global level.*
   - ***Economic recession*** *-The economic impact is expected to be much greater than in 2008, with the IMF expecting global GDP to contract 3% in 2020.*

- ***No China this time.*** *Global air traffic's resilience in 2008 was thanks to China's strong growth engine, which accounted for significant traffic growth on its own, supported commodity exports in emerging markets, and afforded an abundance of cheap credit in advanced economies*
- ***Supply-side constraints****. The unprecedented demand drop in 2019 and 2020 is causing aircraft order cancellations and retirements unlike anything in past recessions, and is already forcing airlines into bankruptcy or liquidation, resulting in less excess capacity during the recovery.*
- ***Behavioral change.*** *Past recessions have led to a loss in business-related traffic. The 2001 recession led to a loss of short-haul business traffic in the United States, and the 2008 recession led to a downgauge of business travel from premium to economy classes. Will 2020 be remembered as the year videoconferencing finally took off, permanently displacing some business travel?*

Accordingly the economic impact of COVID-19 on the world GDP is much significant compared to the 2008 crisis. The Chinese growth engine, which was largely responsible for reviving the global economy post 2008 crisis, was already slowed down and COVID-19 just magnifies the problem.

As per the report basis the relationship between GDP and passenger growth ICF forecasted the global passenger demand to recover **in about four years**. Accordingly the global passenger traffic is forecasted to reach the 2019 levels by 2023 and will witness tepid growth thereafter. Report also suggest faster recovery of domestic traffic compare to internationals. ICF report on COVID 19 passenger recovery phases is attached with this response as **Annexure – 1**.

ii. **ACI:** Airport Council International (ACI) a trade association of world airports in its recent advisory bulletin dtd. 5th May'2020 has provided recent traffic impact of first and second quarter of 2020 along with near future impact of COVID on air traffic worldwide.

During the first quarter of 2020, on a global scale, passenger traffic declined by -56.8% in the month of March year-over-year, during April 2020 passenger traffic volumes declined by 90% in April on a global scale, ranging from -97% in Europe to -70% in Asia-Pacific. It is expected that second quarter of 2020 will see the heaviest impact of COVID-19.

ACI at table 2 of the report provided the comparison of estimate between pre and post COVID 19 for 2020. As per the report, the global traffic for 2020 expected to witness reduction of 50.4% in pre COVID growth estimates and 52.9% reduction in case of Asia-pacific region. ACI Advisory bulletin dtd. 5th May'2020 attached herewith as **Annexure –2**.

iii. **IATA:** International Air Transport Association (IATA) a trade association for the world's airlines in its air passenger forecast for May'2020 attached as **Annexure-3** estimated the recovery period of 2019 traffic levels of **around four years** i.e. 2023. It also estimated the long term annual traffic growth of 5% thereafter in case of Asia pacific region.

Considering the factors mentioned above, the reports of the experts and the experience on the traffic during FY 2021 as yet, DIAL has revisited the traffic projections for the third control period. DIAL in Q1'21(post uplifting of lockdown) has handled average 29000 domestic pax per day and in total handled 1.23 Mn pax. While the Government has allowed an increase in domestic capacity from 33% to 45% from 1st July, the data does not show any increment in traffic. In fact, some of the states have resorted back to lockdowns owing to highest spikes in single day COVID cases and it has resulted in lower daily traffic levels in July 2020 as compared to June 2020. Provided this outbreak slows down and travel restrictions are eased, we expect a slight increase in traffic in Q2'21 and a further increase due to festival season and end of summer in Q3 & Q4. International traffic has been restricted till August 2020 and may possibly be eased from August 2020 onwards. However, this opening will also be subject to bilateral discussions with select countries, as all governments are being very cautious in opening their international borders only with safe countries and destinations. So while Q1 has been a washout for international traffic except for limited rescue flights, Q2 is also expected to be highly muted. Accordingly the traffic in FY'21 expected to reach at level of ~18 million passenger. The expected easing of travel restrictions and demand for travel will result slowly rolling back of traffic in FY'22, similar growth trajectory with slight moderation will follow in FY'23. In FY'24 the traffic may pass FY'20 level, as vaccine development and distribution will be significantly established. As per DIAL assessment the recovery of traffic would be at least take three years after FY'21. Accordingly, we request the Authority to consider the following passenger traffic for the balance period of third control period (FY'20 – FY'24):

Traffic	UoM	FY'20 Actual	FY'21		FY'22		FY'23		FY'24	
				YoY Growth		YoY Growth		YoY Growth		YoY Growth
Pax Overall	**Mn**	**67.30**	**18.39**	**-72.68%**	**36.15**	**96.61%**	**51.50**	**42.46%**	**72.59**	**40.95%**
Domestic	Mn	49.47	15.09	-69.49%	27.75	83.86%	38.86	40.02%	52.84	35.98%
International	Mn	17.83	3.29	-81.53%	8.40	155.01%	12.64	50.50%	19.75	56.22%
ATM	**Nos**	**464058**	**165016**	**-64.44%**	**271915**	**64.78%**	**358340**	**31.78%**	**485203**	**35.40%**
Domestic	Nos	354189	131145	-62.97%	206500	57.46%	268813	30.18%	356669	32.68%
International	Nos	109869	33871	-69.17%	65415	93.13%	89527	36.86%	128534	43.57%
Cargo	**MTs**	**955858**	**615343**	**-35.62**	**823254**	**33.79%**	**940862**	**14.29%**	**1120074**	**19.05%**
Domestic	Mts	352694	214199	-39.27%	296643	38.49%	339021	14.29%	403597	19.05%
International	Mts	603164	401144	-33.49%	526611	31.28%	601841	14.29%	716477	19.05%

1.2 Impact on revenue from revenue share assets

Authority in case of third control period considered past five year CAGR for all the revenue sources under revenue from Revenue Share Assets except in the case of cargo related revenue, ground handling related revenue and revenue from Car Park and radio taxis and contract linked revenues such as revenue from IT JV, Banks and Telecom and revenue from Land Leases in which case the growth rate submitted by DIAL has been considered

DIAL's response

Authority while allowing revenue from revenue share assets has considered past five year CAGR. The revenue from revenue share assets mainly dependent on traffic and passenger behavior and profile and not the simple CAGR growth. In this regard we would like to draw Authority's attention toward recent pandemic as explained in the previous segment, which has shaken the economy of the whole world and in this scenario deep economic impact, loss of jobs, corporate revenue losses, income reductions, salary cuts, etc. have put sever constraints on disposal incomes, COVID 19 will have long lasting impact on economy and accordingly the revenue from revenue share assets will see major effect on this account.

As per the Airport Council International (ACI) in its economic impact bulletin estimated reduction in airport revenue around the world by 56.7% for CY2020 and for Asia Pacific the estimated revenue reduction is 58.9%. The relevant extract of the report is attached herewith as **Annexure –2**.

Considering the various factors impacting non-aero revenue and revised traffic forecast it is necessary to update the revenue from revenue share assets projection. Following is the brief submission with respect to revenue from revenue share assets assumption for CP III of Delhi Airport:

1. Majority of revenue from revenue share assets are linked to traffic, which has a major role in estimation of such revenues. Accordingly, we have revised the non-aero revenue with updated traffic forecast as stated above.
2. The COVID-19 apart from having an impact on the traffic has also affected the economy at large. The situation has led to a crisis where there are widespread business implications across sectors. It is beyond doubt that this will ultimately reduce the spending ability of the passenger and consumer behavior at the airport. Such an economic slowdown will have a severe impact on the revenues at the airport.

Considering above aspect we have revised our estimation for the revenue from revenue share assets. The estimates and the rationales considered for the third control period are provided below:

Revenue Segment	Revenue	AERA assumptions	Assumptions for the remaining control period
Air Traffic related	Ground Handling	ATM Growth	Domestic carrier at Delhi Airport started self-handling, a part of this impact has been witnessed in FY'20 wherein third party revenue has reduced almost 33%. Accordingly the GH, third party GH revenue will be mainly dependent on international ATMs. BME services revenues considered based on overall traffic.
	BME	YOY growth at past 5 year CAGR i.e. 12.65%	

Revenue Segment	Revenue	AERA assumptions	Assumptions for the remaining control period
Passenger Related	Flight Kitchen-Concession Fee	YOY growth at past 5 year CAGR i.e. 12.72%	Linked to Overall passenger growth additionally we reasonably estimate the min 20% dip in SPP in FY'21 due to inflight restriction imposed by GOI and economic downfall. This forms basis for the next year's projections.
	Cark Park (MLCP)	Traffic growth + contractual increase	Linked to traffic growth
	Cark Park (Radio Taxi)	Maintained at FY'19 level of Rs 18.58 Cr	Linked to traffic growth
	Retail Duty Paid	YOY growth at past 5 year CAGR i.e. 17.09%	- Linked to Overall passenger growth - Additional 20% dip in SPP in FY'21 due to reduced spending and penetration while current trend show higher reduction.
	Food & Beverages	YOY growth at past 5 year CAGR i.e. 17.18%	
	Lounge Income	YOY growth at past 5 year CAGR i.e. 17.32%	
	Other non-aero revenue	Rs 19.64 Cr constant throughout control period	
International Passenger Related	Duty Free	YOY growth at past 5 year CAGR i.e. 13.43%	Linked to International pax growth and a one-time dip in SPP by 20% in FY'21
Contract linked revenue	Advertisement	YOY growth at past 5 year CAGR i.e. 13.19%	We foresee a serious reduction in the advertisement revenue as the companies would be compelled to reduce the spend on such expenditure. With the trends seen in the recent times the advertisement revenue is expected to see a reduction of 70% in FY'21 Thereafter we expect the business to revive at the rate of inflation growth and a 20% YoY business growth
	Forex	YOY growth at past 5 year CAGR i.e. 6.49%	The use of plastic money and reduction in leisure travel would lead to a lower utilisation of cash. Also, there will be direct impact of international pax. The forex revenue has been directly linked to international pax for FY'21. In FY'22 we expect the levels of FY'2020 with a de-growth of 10% each year thereafter.

Revenue Segment	Revenue	AERA assumptions	Assumptions for the remaining control period
	Land and Space	YoY 7.5% increase	Some part of the area provided to FBO operators have been surrendered by them which leads to Rs Five Crore reduction in rentals for FY'21. Further, due to COVID situation we expect a reduction in floor area occupancy due to surrender, which will lead to a reduction of about 10% at least. Further, we have considered 5.5% escalation in rentals instead of 7.5% as there was no increase in Q1'21. Thereafter contractual increase has been considered.
	Hangar	Inflationary growth of 4.5% YoY	Due to phase 3A expansion, DIAL needs space hence Airlines have been asked to surrender the hangar space. Further, Indigo and Air India also expected to surrender Hangar Space which will result significant fall in Hangar space income. Accordingly only 20% occupancy has been considered in FY'21
	IT JV	Accepted DIAL submission, i.e. 9% revenue share on Rs 211 cr IT JV revenue and traffic growth thereafter.	The IT JV business has also been impacted due to COVID. The expected IT JV revenue for revenue share purpose is Rs 80 Cr for FY'21. Subsequently it is considered to grow in line with the overall passenger growth
	Airport Service Charge	Inflationary growth of 4.5% YoY	In FY'21 due to lockdown there will be only part operation of the airport, accordingly the concessionaire have been given waiver for T1 & T2 as these have been temporarily closed. We therefore expect only 75% of FY'20 level revenue in FY'21. In FY'22 we expect that revenues reach to the levels of FY'20. Inflationary growth has been considered beyond FY'22.
	Common Area Management		
	Transit Hotel		
	Bank/ATM		
	Telecom	FY'19 levels with no further growth	FY'20 levels with no further growth
Cargo		Overall cargo growth	Overall cargo growth with revised traffic

On the basis of above assumption we propose the following revenue from revenue share assets for third control period:

Particular	2020	2021	2022	2023	2024	Total
Ground Handling	112	35	63	85	120	**415**
Bridge mounted equipment	8	3	5	6	8	**30**
Flight Kitchen	51	11	22	31	44	**159**
Car Park	34	19	37	53	74	**217**
Radio Taxi	17	5	9	13	18	**62**
Retail duty paid	167	37	72	102	144	**522**
Food & Beverages	110	24	47	67	95	**343**
Lounge Income	51	11	22	31	44	**160**
Other passenger link revenue	16	3	7	10	14	**50**
Duty Free	469	69	177	266	416	**1397**
Advertisement	162	49	60	75	94	**440**
Forex	64	12	57	51	46	**230**
Land & Space	361	340	376	404	434	**1914**
Other contract linked revenue	71	41	51	53	55	**269**
IT JV	22	7	21	30	43	**123**
Cargo	270	174	233	266	317	**1260**
Gross Total	**1985**	**839**	**1259**	**1545**	**1966**	**7594**

DIAL always endeavor to maximize the revenue from revenue share assets as it is in its own interest but given the current scenario we anticipate that the subdued economy will adversely impact the revenue from revenue share assets of the airport operator as well. Given the situation, we request authority to kindly consider the above projection for revenue from revenue share assets.

2 True up for first control period

2.1 True up of weighted average cost of capital

2.1.1 Grossing up of cost of Equity

Authority's consideration

The relevant excerpt of para 2.3.7 of the consultation paper listing Authority's observations on grossing up of cost of equity are as follows:

The Authority's assessment of cost of equity in the previous tariff orders have always been post-tax which has been taken as 16%. The Authority is of the view that there is no need to consider any grossing up or adjustment on the cost of equity considered as 16%.

The SSA is also very clear in its interpretation that the WACC has to be post-tax WACC and hence the Authority has considered post tax cost of equity in the past control periods. Further, the aeronautical taxes are allowed as a separate pass through in the tariff mechanism and hence the concept of grossing up of cost of equity is not applicable here.

The methodology suggested by DIAL wherein cost of equity has to be grossed up by tax rate to arrive at post tax cost of equity may not be correct as this methodology is used to calculate pre-tax cost of equity and not post-tax cost of equity as required as per Schedule 1 of the SSA.

Further the pre bid clarifications from AAI regarding cost of equity very clearly says that the WACC calculation put forward is only to ensure consistency between Business Plans submitted by Bidders as part of their Offer and hence should not form the basis for tariff determination for DIAL.

The Authority hence proposes to consider post tax cost of equity as 16% for the First Control Period in consonance with its earlier decisions as per the tariff orders for the First and Second Control Periods.

DIAL's response

In the Consultation Paper, AERA has proposed to keep the rate of equity as it is, i.e., at 16% p.a. for 1st and 2nd Control Periods as per the decision of TDSAT order dated 23.04.2018. While DIAL is not objecting to the said proposal, however, it is submitted that in terms of the express covenants of the SSA, for the purpose of calculation of WACC, the return on equity has to be grossed up by the rate of corporate marginal tax and the same should then be used to calculate the WACC. Since, the definition of WACC as provided in the SSA states that it has to be calculated using the marginal rate of corporate tax to arrive at the CoE after tax, the same has to be given meaning, failing which, the said definition will be rendered otiose and which in turn is contrary to all settled principles of interpretation of contracts

In the context we would like to refer to the section 13 (1) (a) (vi) of the AERA Act 2008 which preserves the rights of the concessionaire on the grant provided under the concession awarded by the Central Government. This position is further reinforced by the TDSAT judgment dated 28th April 2018 where the TDSAT held as follows:

> *In exercise of powers under Section 13 of the Act, AERA is required to respect rights/concessions etc.*
>
> *Contractual rights can be voided only on the basis of explicit statutory provisions or implications from statutory provisions permitting no other option*

The authority has not considered the grant under the concession relevant to the captioned subject, accorded to DIAL under schedule 1 of the SSA. In terms of the SSA the WACC has been defined as '*nominal post-tax weighted average cost of capital, **calculated using the marginal rate of corporate tax**' (emphasis added)*. The Authority has mentioned that the definition has been considered in the determination of first

and second control period orders issued for DIAL. However, the Authority in the earlier orders have only considered the determination of nominal post tax WACC, which is the first part of the definition of WACC under the SSA. Subsequently the WACC so arrived has to be affected with the marginal rate of corporate tax, which the Authority has not considered in the first or the second control period determination.

Therefore, to give effect to the said definition of WACC, the Rate of Return on Equity has to first be grossed up using the marginal rate of corporate tax to ensure the same return after tax and then the same has to be employed in the calculation of WACC. Further, it is submitted that the contention of AERA that for calculating return on equity post-tax, the relevant base has to be adjusted i.e. multiplied by the factor (1-t) and not grossed up by the factor (1-t), where 't' is the marginal rate of corporate tax, is neither in consonance with the intention of the SSA nor is the same a valid interpretation of its express terms. Therefore, unless the Cost of Equity of 16% is grossed up with of return on equity is calculated to get post-tax return using the marginal rate of corporate tax to ensure 16% after tax, which means 22.86%, the definition of WACC as given in the SSA, is not given its full effect.

Further, with regard to bid clarification provided by AAI, we would like to submit that the importance of bid clarification cannot be undermined or overlooked as in such bids the clarification provided by the concessioning authority, plays a vital role for the investor to take decisions. Every clarification provided is well accounted in the submission of bid and same need to be abided post award of concession. The WACC number provided by AAI, even if it is for the purpose of ensuring consistency in the bid, it displayed the vision of the concessioning authority on the methodology to arrive at the WACC. It is relevant to notice that the figure of 22.8% as given in the RFP cannot be an assumed number since it is highly unlikely that a fractional number such as 22.8% would be 'assumed' as 16% return on equity after tax. It is therefore, evident that the said number is a result of a grossing up calculation, which must have been done to arrive at the 22.8% as stated in the RFP. Hence, when the methodology has been clarified to be used for maintaining the bid consistency, there is no reason for the regulator to deviate from the understanding represented by AAI. The given methodology as explained above should be given weightage and cannot be ignored by AERA.

In view of the above it is submitted, that while calculating weighted average cost of capital, cost of equity has to be computed in a manner which is simply the rate of return on equity. This is so because it is the return on equity given to investors which is the cost attached to such equity. However, for calculating WACC in terms of the SSA, the post-tax cost of equity should be considered and the same should be calculated using the marginal rate of corporate tax.

Therefore, to give effect to the said definition of WACC, rate of return arrived at after employing the CAPM formula is to be grossed up using the marginal rate of corporate tax and the number then arrived at is to be used for the calculation of WACC as defined in the SSA.

We therefore request the Authority to revisit it's decision regarding the calculation of CoE in terms of the concession awarded and consider the CoE for the first control period as follows:

Cost of equity arrived by the Authority = 16%

CoE to be considered as per SSA = 16 *[1/(1- 30%]

= 16 *[1/(100-30/100)]
= 16 * [1/0.7]
= 16 * 1.43
= 22.8%

It is therefore, requested that in order to ensure that a return after tax of decided as per CAPM methodology is actually granted to DIAL, the same needs to be grossed up by the marginal rate of corporate tax for the calculation of WACC as required in terms of the SSA.

2.1.2 Return on Refundable Security Deposit (RSD)

Authority has proposed to consider return on RSD as equivalent to the cost of debt for the First Control Period based on the recommendations of the independent study. Authority seeks stakeholder's views on the proposal to consider the return on RSD as equivalent to the cost of debt.

AERA had appointed independent consultant who has provided following conclusion on what should be the available return on RSD:

Option 1 recognizes that airport users benefitted to the extent of the cost of debt and hence DIAL should be compensated as per the cost of debt on RSD. On the other hand, Option 2 recognizes that the RSD amount could have been invested in an escrow account and the missed opportunity for DIAL is the earnings that would have accrued to them on a suitable escrow account; thus, the compensation to DIAL should reflect the return on an appropriate escrow account. AERA can consider both options because they are based on economic logic that tries to capture the opportunity costs. Option 2 is more difficult to implement because the rate of return on specified CRISIL-rated funds varies over time and is subject to estimation issues whereas the cost of debt required in Option 1 is relatively stable and frequently estimated by AERA when determining the annual cost of capital.

DIAL's response

In accordance with TDSAT judgment dated 23rd April 2018, RSD is eligible for return, though the cost needs to be ascertained and made available to DIAL. The quantum of return has been recommended by the independent consultant appointed by AERA i.e. IIM Bangalore. IIM Bangalore recognizes that airport users benefitted to the extent of the cost of debt and hence DIAL should be compensated as per the cost of debt on RSD.

In this regard we would like to submit that RSD has equity like features such as long duration of availability of funds and also it has no restriction of usage of this fund. These features are available for equity funding accordingly a return equivalent to equity should be provided to DIAL on RSD.

DIAL had raised debt to part fund the development of IGI Airport by a consortium of 10 banks. Nine out of ten banks are nationalized banks, one being a publicly listed infrastructure investment firm. All the lenders treated RSD (to be realized at a later time) as sponsor's contribution (part of equity) while determining D/E ratio and determining the cost of debt. If RSD were not considered as part of equity, it will cause:

-Higher leverage and more risk for banks resulting in higher cost of debt; and

-Higher pass through cost in terms of higher interest cost

DIAL had submitted that RSD is in the nature of quasi-equity and a return should have been allowed in respect of the same. DIAL has submitted expert opinions from KPMG and CARE to support its submissions in this behalf. The expert opinions are as follows:

Expert Opinion by CARE

> *"In light of these facts, the amount mobilised through RSD exhibits equity like features and as such qualifies for being treated as quasi equity and thus being eligible for close to equity returns."*

Expert Opinion by KPMG

> *"The Authority has proposed to provide zero returns on capitalized airport asset funded through RSD. However, it is evident that there is an opportunity cost associated with RSD in terms of the forgone lease rentals. Also, lenders have treated the RSD funding as part of promoter's contribution (quasi-equity), therefore, RSD utilised to fund the capex is expected to have risk inherent to that associated with equity. Additionally, there are examples from other infrastructure sectors where regulator provides return on the capital employed by the Concessionaire and does not consider the cost of funds while calculating tariff."*

A copy of above opinions attached herewith **as Annexure-4 & Annexure 5**.

Thus, while reviewing the recommendation of IIM, Bangalore, AERA should give equal weightage to the reports of KPMG and CARE, which are also competent on the matter.

The MoCA had also initiated a study through SBI Caps which indicated that Quasi Equity be provided return between cost of debt and cost of equity depending upon the type and feature of the instrument. The same study indicated the rate of return should be 18.5% to 20.5%. This report was also sent to AERA by MoCA for consideration. However, AERA has not considered the policy direction stipulated by MoCA.

Further, even if Authority decides to provide return on RSD equivalent to cost of debt which is also the view concluded by IIM Bangalore in its report, then we would like to submit that AERA in first control period i.e. FY'09 to FY'14 has allowed cost of debt of 12.17% towards rupee term loan. The avoided cost or the opportunity cost for the RSD invested in the capital expenditure should not be less than the cost of debt considered efficient by AERA. Hence, in case of return on RSD equivalent to debt then also the rate should be considered @ 12.17% which is an efficient cost of debt considered by AERA.

Accordingly we request Authority to consider the RSD as Quasi Equity and allow return equivalent to cost of equity.

2.2 True up of foreign exchange loss

At para 2.4.11, Authority has mentioned following for foreign exchange loss:

Authority has looked at the submission regarding foreign exchange losses incurred by DIAL and has noted that the cost of debt considered takes into consideration the payment towards meeting the obligations under the hedge instruments taken by DIAL. Authority has also understood that the operator has taken only Interest Rate Swap and not Foreign Currency Swap for its foreign currency liability in the First Control Period. Authority has taken the view that the costs incurred by DIAL towards hedging have been already considered under the cost of debt and the losses incurred by DIAL need not be considered as a pass-through under operating expenses. ***Authority is of the view that the losses incurred are on account of the hedging principles adopted by DIAL and losses on account of the same need not be passed onto the airport users.*** *The Authority has also noticed the claim made by DIAL in its tariff proposal which is as follows;*

"DIAL as a part of cost optimization, leveraging on foreign currency inflow and optimizing cash flows have taken foreign currency loan in the FY'10 & FY'14. The benefit of lower cost has been passed on to the passenger in terms of lower tariff however on the other side due to currency fluctuation DIAL had to incur forex losses."

Authority is of the view that if such forex losses were to be passed on along with the cost of hedge, the same would nullify whatever benefit DIAL is claiming that has been passed on to the passengers. The Authority had also allowed DIAL to consider the upfront cost of the new foreign currency loans along with the pre-closure cost of the existing loans in their submissions. DIAL have also submitted that they have taken this foreign currency loans leveraging on foreign currency inflow and optimizing the cash flows. ***Authority is guided by the principle of the SSA which says only efficient costs have to be considered. Authority has hence proposed not to consider forex losses as a pass-through under operating expenses for the First Control Period.***

DIAL's response

DIAL has proven track record of maintaining lowest cost of debt in the industry. In the year, 2011 when the ECB was drawn the rupee was much stable compare to today's business scenario. DIAL had natural hedge available in terms of foreign currency inflow from duty free and UDF. Accordingly, considering the expert views, natural hedge and market scenario DIAL had taken on Interest rate swap and not the currency swap. With this DIAL could able to maintain cost of ECB at 6.96% which was highly efficient. Further, even if we consider the forex loss of CP1 of Rs. 136 Cr still cost of debt could have been maintained at 8.82% vis a vis 12.17% allowed by AERA in CP1 order for rupee term loan. Accordingly, we are unable to understand Authority's ground of disallowance that the forex loss incurred resulted into inefficient cost or nullifying the benefits of lower burden.

Also, while allowing forex loss for second control period Authority has considered 11.38% i.e. the cost of RTL allowed by AERA. In consultation paper 15/2020-21 at Para 3.5.12 stated following:

> *"The Authority is of the view that the Airport Operator's effective cost of debt shouldn't exceed at the least the cost of the borrowing in the local currency which was determined as 11.38% as per the tariff order for the Second Control Period. The Authority hence proposes to allow only forex*

losses to the extent the effective cost, including the allowed forex losses, don't exceed 11.38%. Authority is of the view that only to this extent the forex losses incurred by the operator can be considered as Efficient Costs."

From the above it is clear that the Authority in case of second control period has considered the cost of debt allowed by Authority in its order no 40/2015-16 as efficient and accordingly allowed forex loss and refinancing cost to that extent in second control period. In similar way Authority should consider allowance of forex loss for first control period to the cost of RTL allowed by AERA in order no 3/2011-12 i.e. 12.17%. Following is the effective cost of ECB in first control period:

Particular	**2010**	**2011**	**2012**	**2013**	**2014**
Interest					
ECB 350 Mn	7.88	124.81	125.49	124.85	112.04
ECB 100 Mn	0.00	0.00	0.00	0.00	13.69
Total interest	7.88	124.81	125.49	124.85	125.73
Forex loss	-0.09	1.61	10.14	35.14	89.18
Total	**7.79**	**126.42**	**135.63**	**159.99**	**214.91**
Avg. debt					
ECB 350 Mn	795.90	1591.80	1591.80	1571.90	1482.36
ECB 100 Mn					275.96
Total Average	**795.90**	**1591.80**	**1591.80**	**1571.90**	**1758.33**
Effective rate	**8.82%**				

DIAL in case of first control period requested Authority for allowance of forex as per treatment of forex loss in financials i.e. AS-11, however Authority had not allowed forex loss in first control period. Authority at decision 29.f of the order no 3/2012-13 dtd. 20th April'2012 stated that the WACC of 10.33% determined under CP1 shall not be trued up. Also, Authority at order no 40/2015-16 for the second control period at decision no 4.f clearly decided to not true-up WACC of 10.33%, which was considered by it in its Delhi Tariff Order No. 03/ 2012·13.

The TDSAT in it's judgment dtd. 20th March'2020 in the matter of DIAL appeal no 7 for DF has decided as follows with respect to the upfront fee:

the impugned order of AERA for excluding the upfront fee of Rs.150 crores from the Project cost is found to be not sustainable either on facts or in law. Hence, exclusion of the aforesaid amount of Rs.150 crores of upfront fee from the Project cost is set aside. However, it is clarified that this amount shall not be a part of the RAB but will be treated as equity share capital of DIAL while determining WACC.

DIAL also filed appeal no 10/2012 against the first control period AERA order no 3/2011-12. One of the contention of the appeal was that the Authority while calculating WACC considered RSD as debt @ 0%. TDSAT in its order dtd. 23rd April'2018 at para 106 for DIAL appeal 10/2012 provided that the return on RSD cannot be zero and it is eligible for some return, following is the relevant extract of the order:

That return cannot be less than the cost which DIAL has to bear or it has borne by making available the amount of RSD (Rs.1471 crores) for investment in the airport project. Clearly, in our opinion,

this money has wrongly been treated as debt at zero cost. The well accepted commercial practices and norms need to be respected by the Authority and therefore, return on RSD amount should be re-determined by it for the reasons indicated above. Instead of interfering with the impugned tariff determination we direct that the amount due to DIAL under this head should be worked out and made available to DIAL through appropriate fiscal exercises which should be undertaken when the exercise of redetermination of tariff for IGI Airport, Delhi is next undertaken in due course.

Accordingly, the WACC for CP1 should be true up only to the extent of the order pronounced by the tribunal. Truing up cost of debt while determination of WACC is against Authority's own order.

The authority vide the order number 40/2015-16 for second control period at para 8.25 opined that it will allow the forex as expense in case the WACC has been trued up or considered on actual. Following is the relevant extract of para 8.25 of the order no 40/2015-16:

While the Authority is inclined to consider foreign exchange rate fluctuations, it is not persuaded to consider the approach of making adjustments in RAB. Normally, actual losses incurred by the operator on account of fluctuations in foreign exchange are expensed out while determining tariff for the operator. The Authority is of the view that in case it were to consider foreign exchange rate fluctuations by expensing out actual losses on this account, it would also true up the WACC (including actual interest rates on domestic term loan).

The decision to consider forex as an expense and forego the benefit of refinancing was evaluated by DIAL and accordingly as part of true up during MYTP for third control period it had requested the Authority to true up the WACC including the cost of debt from the first control period and simultaneously allow the forex loss as expense. In the consultation paper for third control period Authority has not allowed forex loss for first control period and moreover trued up the cost of debt as well which goes against the principles decided by the Authority itself.

Accordingly, we request Authority in case it decide to true up the cost of debt then the forex loss should be allowed.

2.3 True up of revenue from revenue share assets

2.3.1 Fuel throughput charges

The Authority at Page 41 has mentioned that the issue of Fuel Throughput has been deliberated in the second control period order. The reliance of the Authority to consider the Fuel Throughput charges as aeronautical is based on the following two premises that:

1. The activities and the revenues associated with the Fuel Throughput Charges and Fuel Farm Infrastructure Charges / Fuel into Plane service are by nature associated with aeronautical service which are further affirmed under Schedule 5 of the OMDA which mentions :
   " Common Hydrant Infrastructure for aircraft fueling services by the authorized providers"

2. The under section 2 (a) (vi) of the AERA act 2008 the 'aeronautical service' means any service "for supplying fuel to the aircraft at an airport"

DIAL's response

The submission made by DIAL has been disallowed by AERA primarily on the ground that activities and the revenues associated with Fuel Throughput charges and Fuel Farm Infrastructure Charges and Fuel Into Plane services are by nature the aeronautical services listed under Item 17 of Schedule 5 of the OMDA, i.e., under 'Common hydrant infrastructure for aircraft fuelling services by authorized providers' and therefore such charges have to be determined by AERA.. It is submitted that while determining the nature of Fuel Throughput Charges, AERA has failed to consider the true nature and purpose of levy of the said charges and has therefore, wrongly considered the FTC to be of the same nature as Fuel Infrastructure Fee.

It is submitted that the common hydrant infrastructure at the IGI Airport is owned, maintained and operated by Delhi Aviation Fuel Facility Pvt. Ltd. (DAFFPL) and therefore the fee which is levied for the facilities and services provided by usage of such infrastructure as defined under Item 17 of Schedule 5 of the OMDA is charged by DAFFPL to the oil companies. On the other hand, the Fuel Throughput Charge, which is charged by DIAL, is akin to royalty paid by the oil companies for getting the right to enter and supply oil at the IGI Airport and the same is independent of the services provided by DAFFPL by use of the common hydrant infrastructure. As such, Fuel Throughput Charges are in no way relatable to Item 17 of Schedule 5 of the OMDA as has been sought to be done by AERA in its proposal. It is submitted that it has been wrongly assumed by AERA that Fuel Throughput Charges, Fuel Infrastructure Fee and Into Plane Charges are all of same class and similar and therefore, attributable to Schedule 5 of the OMDA. On the contrary, Fuel Throughput Charges and Fuel Infrastructure Charges are not only different by nature but are also charged by different agencies for the specific reason that the purpose of levying these charges is completely distinct and separate. While Fuel Infrastructure Fee is clearly listed in Item 17 Schedule 5 of the OMDA, Fuel Throughput Charges are not at all listed in Schedule 5 of OMDA

Further, the revenue on account of FTC is not being generated on the usage of Common Hydrant Infrastructure for the provision of aircraft fueling services at IGI Airport. DIAL has explained this aspect to AERA since beginning but AERA has not given due consideration thereto. No cogent reason has been given by AERA in any of its orders to not accept this position, other than maintaining its stand.

For the same reason, the reliance on Section 2 (a) (vi) of the AERA Act, which defines the "service of supplying of fuel to the aircraft at an airport" as an aeronautical service, to treat the FTC as aeronautical revenue is incorrect. Explained in the submission of the MYTP, levy of FTC is not a charge in relation to the supply of fuel to the aircraft. Service for supply of fuel is distinct from the license granted to the service provider to sell the fuel.

Thus the nature of FTC, as described above, is not the service by DIAL "for supply of fuel to the aircraft" in terms of clause 2(a) of the AERA Act, 2008 nor is it the service of "common hydrant infrastructure for

aircraft fueling" as referred to at Item No. 17 of Schedule 5 to OMDA. The FTC levied is distinct from the charges for services for supply of fuel.

Thus the nature of FTC, as described above, is not the service by DIAL "for supply of fuel to the aircraft" in terms of clause 2(a) of the AERA Act, 2008 nor is it the service of "common hydrant infrastructure for aircraft fueling" as referred to at Item No. 17 of Schedule 5 to OMDA. The FTC levied is distinct from the charges for services for supply of fuel.

It is actual services performed by DIAL or the third parties at the airport, of which the nature and kind is relevant for categorization of nature of services under OMDA. Hence, to call FTC as a fee collected consequent to the supply of fuel is not the correct determination of nature of FTC.
It is also relevant to mention that since Fuel Throughput Charges are not the facility or service as listed at Item 17 of Schedule 5 of the OMDA, the same cannot be attributed to Aeronautical Services as defined in the OMDA. In this regard the definition of 'Aeronautical Services' as given in the OMDA is relevant and the same is as under:

*""**Aeronautical Services**" shall have the meaning assigned hereto in Schedule 5 hereof."*
Further, Schedule 5 of the OMDA, which is mentioned in the definition of Aeronautical Services, is as under:

"***SCHEDULE 5***
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 landside 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"*

From the language of the definition of Aeronautical Services as well as that of Schedule 5 it is clear that Aeronautical Services are limited to the services which are listed out in Schedule 5 of the OMDA and therefore, the ambit of what entails an Aeronautical Service as per the OMDA cannot be expanded by assumption or implication beyond the limits thereof. The Hon'ble Supreme Court while passing its judgment in matter titled , 'Union of India v. Assn. of Unified Telecom Service Providers of India' (2011) 10 SCC 543, wherein the import of the definitions of 'license' and 'licensor' as provided under the TRAI Act was under challenge and it was held as follows:

> "*46. A reading of Section 14(a)(i) of the TRAI Act would show that the Tribunal has the power to adjudicate any dispute between a licensor and licensee. A licensor, as we have seen, has been defined under Section 2(es) of the TRAI Act to mean the Central Government or the Telegraph Authority who grants a license under Section 4 of the Telegraph Act and a licensee has been defined in Section 2(e) of the TRAI Act to mean any person licensed under sub-section (1) of Section 4 of the Telegraph Act providing specified telecommunication services.* ***The word "means" in Section 2(e) and 2(ea) of the TRAI Act indicates that the definitions of license and licensor are exhaustive and therefore would not have any other meaning. As Justice G.P. Singh puts it in his book Principles of Statutory Interpretation, 12th Edn. At pp, 179-80:***
>
> ***" When a word is defined to 'mean' such and such, the definition is prima facie restrictive and exhaustive;"***
>
> (emphasis supplied)

Further, as per Clause 2.2.3 of the OMDA, the list of Non-Aeronautical Services, as given in Schedule 6 of the OMDA, can be updated by a mutual decision of DIAL and AAI, however, no similar right has been granted by the OMDA with respect to Schedule 5 which enlists the Aeronautical Services. As such, the power to expand the list of Aeronautical Services given in Schedule 5 is conspicuous by its absence and the same leads to the inevitable conclusion that the list of Aeronautical Services is limited to the items mentioned in Schedule 5 and therefore, the power of regulation of charges by AERA has to be exercised solely with respect to the items mentioned in the said list.

DIAL has been allowed to continue AAI's existing contracts as on the date of OMDA, which included the levy of Fuel Throughput Charges in terms of its obligation under Article 5 of the OMDA which states as under:

> "*5.1* ***Upon satisfaction or waiver, as the case may be, of the Conditions Precedent, on and from the Effective Date, the rights and obligations associated with the operation and management of the Airport would stand transferred to the JVC, who shall be solely responsible and liable for the performance of all Aeronautical Services, Essential Services and all other activities and services as presently undertaken at the Airport (other than Reserved Activities).*** *JVC shall perform under all existing contracts and agreements between AAI or any Relevant Authority and any third party as relatable to the Airport from the Effective Date, as if JVC was an original party to such contracts and agreements instead of AAI and towards this end shall perform*

all responsibilities, liabilities and obligations of AAI at JVC's risk and cost (including payment obligations to counter parties). Provided however that in order to ensure smooth transfer of the Airport from the AAI to the JVC, AAI shall during the Transition Phase provide assistance to the JVC (on a best endeavour basis) in the manner provided hereinbelow.

5.2 ***Transition Phase***

…..

(b) During the Transition Phase, the following activities shall take place:

(i) ***Existing Contracts****: The JVC shall take best efforts, and AAI shall render all reasonable assistance, to transfer / novate AAI under all existing contracts and agreements between AAI and any third party, as relatable to the Airport, with the JVC, on the principle that such transfer / novation would release AAI of all liabilities and obligations under such contracts or agreements as arising from and after the Effective Date (except those pertaining to Legacy Matters). The Parties, along with relevant third parties shall execute necessary documentation or put in place necessary arrangements for the aforesaid transfer / novation. The Parties expressly agree that in respect of existing arrangements of Indian Airlines Ltd. and Air India Ltd. for usage of land and/or building at the Airport and Public Sector oil companies in respect of common hydrant infrastructure for aircraft fuelling at the Airport, for which no express written contract has been executed or presently exists, such existing arrangements shall continue for a period of six (6) months from the Effective Date and the JVC shall during such period mutually agree with Indian Airlines Ltd., Air India Ltd. and Public Sector Oil companies in respect of such arrangements going forward. Provided however that any third party contract that cannot be specifically novated to the JVC for any reason* ***whatsoever*** *shall be performed by the JVC (at its own risk and cost) for and on behalf of AAI (as if the JVC was an original party to the said contracts, in place of AAI). Provided further that JVC shall indemnify and keep indemnified the AAI against any liability or costs arising under such contracts (including, for the avoidance of doubt, contracts relating to capital works-in-progress included in the list of Mandatory Capital Projects), including specifically, payments due to the counter-parties of such contracts or to any other Entities pursuant to such contracts. Any benefits arising from such contracts shall also vest with JVC. Nothing contained in this Article 5.2 (b) (i) shall prejudice the payment obligation of the JVC in respect of payments due from August 30, 2005 under contracts for capital works-in-progress as contained in Article 5.2 (b) (ii) hereof.*

(emphasis supplied)

Therefore, in terms of Article 5.1 of the OMDA, on the Effective Date, DIAL became obligated to carry out not only Aeronautical Services as listed in the OMDA but to also provide all such activities and services which were being carried out at the IGI Airport by AAI before the Effective Date. Further, in terms of Clause 5.2, DIAL was also under an obligation to novate all existing contracts which had been entered into by AAI with third parties and to get the same transferred to the name of DIAL. It is as a part of the said obligation on DIAL, that it has continued to levy Fuel Throughput Charges and as such, the same has been done not as an obligation to continue with the activities and services which were earlier being carried out by AAI.

The aforementioned position becomes further clear from the response issued by AAI to the pre-bid queries of the bidders whereby AAI clarified that an agreement for payment of the Fuel Throughput Charges had been reached between AAI and the oil companies and that the airport operator would be free to negotiate the Fuel Throughput Charges with the oil companies. The said response given by AAI is completely in consonance with the contractual scheme as given in Article 5 of the OMDA and the same is represented by AAI to not to be the Aeronautical Charge under Article 12.1 of OMDA, It also represents the understanding between the parties with respect to levy of Fuel Throughput Charges as being not the Aeronautical Charge. Further if the Fuel Throughput Charges were to be regulated and/or covered by Schedule 5 of OMDA then AAI would have never given clarification stating JVC is free to charge based on negotiation with Oil Companies. The stand of AAI also shows that the intent of the parties was to ensure that the airport operator would have the freedom to negotiate the quantum of Fuel Throughput Charges with the oil companies and that the same would not be within the ambit of regulation as proposed to be done by AERA.

In its proposal AERA has also stated that Fuel Throughput Charges are an Aeronautical Service as per the terms of the OMDA as well as on the basis of the provisions of the AERA Act, 2008. While it has been amply demonstrated hereinabove that Fuel Throughput Charges do not form a part of Schedule 5 of the OMDA and can therefore, not be considered an Aeronautical Service in terms of the OMDA, as far as the provisions of the AERA Act are concerned, the said provisions are not applicable to determination of the nature of Fuel Throughput Charges. It is submitted that the TDSAT while determining the principles of tariff fixation has clearly enunciated that while determining the Aeronautical Charges for IGI Airport, New Delhi, AERA has to give precedence to the provisions of OMDA and SSA and that the statute would only be applicable in case there is an explicit contradiction between the contracts and the AERA Act. However, in the case of DIAL, a bare reading of the OMDA and SSA makes it clear that Aeronautical Services have been exhaustively defined in Schedule 5 of the OMDA and there is no conflict or contradiction in this regard between the OMDA and the provisions of the AERA Act. It is also submitted that since it has been agreed in the OMDA that the ambit of Aeronautical Services is limited to the facilities and services as listed in Schedule 5 thereof, the same can not be done through the provisions of the AERA Act. As such, the reliance of AERA on the provisions of the AERA Act are wholly misplaced and the same cannot be adverted to for the purposes of determining the nature of Fuel Throughput Charges. Without prejudice to the foregoing, it is also submitted that even as per the provisions of the AERA Act, Fuel Throughput Charges are not covered under any of the Aeronautical Services enlisted therein and can should therefore not be considered as an Aeronautical Charge by AERA as sought to be done in its proposal.

In addition to the foregoing, in its proposal AERA has also stated that the fact that AAI was also levying Fuel Throughput Charges and that the airport operators were given the freedom to negotiate and charge the same does not mean that Fuel Throughput Charges has to be reclassified to revenue from Revenue Share Assets. However, the foregoing is a misinterpretation of the submission made by DIAL whereby DIAL had stated that since AAI has explicitly stated that Fuel Throughput Charges were being charged by it and that the airport operator has the right to negotiate the Fuel Throughput Charges with the oil companies, it evidently means that Fuel Throughput Charges are outside the ambit of Aeronautical Charges.

It is also relevant to take into consideration the fact that while AERA has accepted the fact that DIAL was given the right to negotiate and charge Fuel Throughput Charges from the oil companies, it has failed to take into consideration the fact that if Fuel Throughput Charges are to be regulated by AERA, then the same would amount to rewriting by AERA of the contract between AAI and DIAL and thus becomes the case of abrogation of the said right which has admittedly been granted to DIAL. Therefore, the treatment of Fuel Throughput Charges as sought to be proposed by AERA as an Aeronautical Service is in complete derogation of DIAL's rights under OMDA . Therefore it is requested that the proposal of DIAL be modified and Fuel Throughput Charges be considered as revenue from Revenue Share Assets for 30% cross-subsidization of the Aeronautical Charges.

Further, in the Consultation Paper, AERA while disregarding DIAL's submission has also stated that it would continue to rely on the decision taken by it in the Second Control Period. However, AERA has failed to appreciate the fact that the submissions made by DIAL in respect of the nature and treatment of Fuel Throughput Charges have not been made before.

In this regard it is also submitted that such submission is without prejudice to DIAL's contentions on the matter pending sub-judice before Hon'ble Supreme Court of India. The additional submission is in fact an alternate submission made to AERA, under AERA's persistent but incorrect stand to treat FTC as aeronautical revenue despite repeated assertions and logical reasoning given by DIAL, in its MYTP for third control period and has suggested to AERA that if it considers that FTC has correlation with the aeronautical services it may be treated as revenue from Revenue Share Assets, but in no case the FTC can be directly categorized as aeronautical service

In the definition of Revenue Share Assets, the example of "public admission fee" considered as revenue from Revenue Share Assets, is a fee for the right given to a person to enter into the airport. This fee is not the revenue from aeronautical service but is considered to have a correlation with the usage of aeronautical assets by virtue of gaining access to the airport building. While the passenger terminal building is an Aeronautical Asset, public admission fee which is charged on account of the existence/ use of the same but is not considered to be the Aeronautical Service being provided at the passenger terminal building. It is rather categorized as revenue from revenue share asset. Though if the same person uses such assets as a passenger then the charges paid by such person as UDF, etc. become the charges towards aeronautical services which fall within the purview of AERA.

Same way the fee in the form of FTC is levied to enable the oil companies to gain access to the airport. This is not the aeronautical service provided by DIAL. However the same oil company when availing the services of aeronautical infrastructure of the airport, i.e., fuel hydrant, to supply fuel, the charges paid for such services and facilities become the charges towards aeronautical services which fall within the purview of AERA. Such services acquires the nature of aeronautical services and thus to be regulated by AERA.

The aforementioned submissions are being made by DIAL for the correct and proper interpretation of the terms of the Project Agreements. AERA's proposal that since neither DIAL made the aforementioned

submissions in the First or Second Control Period nor did AERA consider the said contention in the earlier control periods, and hence it relies on the tariff order passed for the Second Control Period, is unwarranted and misplaced. The issue requires consideration keeping the express terms of the OMDA and SSA in mind. It is therefore requested that AERA may consider the said submissions and accordingly, reconsider its proposals to reflect the true intent and spirit of the Project Agreements.

Hence, DIAL requests the Authority to revisit it's decision of considering the FTC charges as aeronautical and consider the same in terms of the concession awarded to DIAL.

2.3.2 Revenue from disallowed area

Authority at para 2.6.16 has stated following:

> *The Authority has looked at DIAL's submission with regards to Revenue from disallowed area. The Authority is of the view that as long as the Concessionaire realises non-aeronautical revenue from the disallowed area, such revenues should form part of the revenue from the Revenue Share Assets. The view is based on the fact that even though the dis-allowed area is excluded as investment for the In fact the Non-Aeronautical Asset definition specifically includes the assets which are located within purpose of determination of aeronautical tariff, DIAL is able to realise revenues from such disallowed area. or forms part of any terminal building and are incapable of independent access and independent existence as highlighted in the previous sections. Based on this definition the revenue generated from this disallowed area forms part of the revenue from Revenue Share Assets.*

DIAL's response

As per Schedule 1 of the SSA, the revenue which is liable for 30% cross-subsidy of Target Revenue is the revenue from Revenue Share Assets as defined in the SSA. It is therefore relevant to see whether the revenue from disallowed assets can be considered as revenue from Revenue Share Assets or not.

That by a perusal of the definition of Revenue Share Assets it can be seen that the same mainly consist of Non-Aeronautical Assets and therefore, it is only revenue which is being generated through Non-Aeronautical Assets, which can be considered as revenue from Revenue Share Assets and can in turn be used for 30% cross-subsidy. It is therefore relevant to ascertain the assets which would come under Non-Aeronautical Assets as per the definition given in the OMDA.

The definition of Non-Aeronautical Assets starts with the term 'Non-Aeronautical Assets shall mean:' and the same therefore implies that the definition of Non-Aeronautical Assets is exhaustive and that no other assets, except for the ones which fall within the express ambit of the said definition, can be classified as Non-Aeronautical Assets. The aforementioned contention is also supported by the judgement passed by the Hon'ble Supreme Court in matter titled 'Union of India v. Assn. of Unified Telecom Service Providers of India' (2011) 10 SCC 543, referred above.

Further, the definition of Non-Aeronautical Assets as given in the OMDA, is qualified by the words 'All assets required and necessary for the performance of Non-Aeronautical Services'. As such, only an asset which is 'required and necessary' for the performance of Non-Aeronautical Services can be considered as a Non- Aeronautical Asset in terms of the OMDA. The corollary of the foregoing is that any asset which is not required or not necessary for the performance of Non-Aeronautical Services, cannot be termed as a Non-Aeronautical Asset in terms of the OMDA.

Since, the area which has been disallowed by AERA has been disallowed by virtue of the same being not required for the provision of services, it is evident, that the same can neither be considered to be required nor can it be considered to be necessary for the provision of Non-Aeronautical Services. The aforementioned stance taken by AERA in its Order No. 28/2011-12 dated 08.11.2011 has also recently been affirmed by the Appellate Tribunal, TDSAT vide order dated 23.04.2018, has agreed with the decision of AERA to disallow this area on the basis of the same not being required to be built.

From a plain reading of the definition of Non-Aeronautical Assets, it is evident that the disallowed area and the assets built thereon cannot be considered a part thereof as the same were neither required nor necessary for provision of Non- Aeronautical Services. In the Consultation Paper, AERA has stated that 'Non-Aeronautical Asset definition specifically includes the assets which are located within or forms part of any terminal building and are incapable of independent access and independent existence' and has therefore proceeded to state that the disallowed area also forms a part of the Non-Aeronautical Assets. However, it is submitted that AERA while relying on a part of the definition of Non-Aeronautical Assets, has not considered the definition in its totality.

Sub-Clause (2) of the definition of Non-Aeronautical Assets states that all assets which are 'required and necessary' for the performance of Non-Aeronautical Services at the Airport as listed in Part II of Schedule 6 of the OMDA (irrespective of whether they are owned by DIAL or any third Entity) come within the ambit of Non-Aeronautical Assets, if the same, (a) are located within or form part of any terminal building; or (b) are conjoined to any other Aeronautical Assets, and are incapable of independent access and independent existence; or (c) are predominantly servicing/ catering any terminal complex/cargo complex.

Therefore, even in terms of the said sub-clause, all assets which are 'required and necessary' for the performance of Non-Aeronautical Services at the Airport as listed in Part II of Schedule 6 of the OMDA would also form a part of Non-Aeronautical Assets if the same were to fulfil any one of the following conditions:

(a) are located within or form part of any terminal building; or

(b) are conjoined to any other Aeronautical Assets, and are incapable of independent access and independent existence; or

(c) are predominantly servicing/ catering any terminal complex/cargo complex.

As such, the pre-requirement of an asset being 'required and necessary' for provision of Non-Aeronautical Services shall remain even in the case of assets which fall in the subsequent three categories and the same is a sine qua non for being categorised as a Non-Aeronautical Asset. Therefore, the reliance of AERA on a part of the definition of Non-Aeronautical Assets is misplaced and the same cannot be relied upon to state that the disallowed assets form a part of the Non-Aeronautical Assets as defined in the OMDA. Further,

since the disallowed area does not form a part of the Non-Aeronautical Assets, the same also does not form a part of the Revenue Share Assets, the definition of which is also reproduced hereinabove.

Since it is evident that the disallowed area does not form a part of the Non-Aeronautical Assets, the question that remains is whether the revenue from the disallowed area can still be considered for 30% cross-subsidy or not. AERA in its Consultation Paper has stated that as long as DIAL realises 'non-aeronautical revenue' from the disallowed area, such revenues should form part of the revenue from the Revenue Share Assets and would therefore, be liable to be considered for 30% cross subsidy of Target Revenue.

As such, in the Consultation Paper AERA has relied on the concept of non-aeronautical revenue to state that the same should form a part of Revenue Share Assets. However, It is submitted that the said contention of AERA is wholly contrary to the scheme of the OMDA and the SSA which clearly lay down that it is 'revenue from Non-Aeronautical Assets' and not 'non-aeronautical revenue' which has to be used for cross-subsidization of target revenue. Further the said contention is also contrary to AERA's own stand as per the Order no.14/2016-17 wherein it is clearly stated that in case of Delhi and Mumbai airports, tariff will continue to be determined as per SSA and not Hybrid till wherein 30% of non-aeronautical revenues will be cross-subsidize.

As per the scheme of the OMDA and the SSA, the revenue earned by DIAL has to be ascertained on the basis of the source, i.e., Aeronautical Assets and Non-Aeronautical Assets, from which it has been earned and it is therefore, revenue from Non-Aeronautical Assets and not non-aeronautical revenue which is to be considered for the purpose of determination of tariff. Therefore, any revenue which has not come from Non-Aeronautical Assets, would lie outside the purview of AERA and the same cannot be considered either as revenue from Revenue Share Assets or for 30% cross-subsidy.

The foregoing can also be seen in juxtaposition with the National Civil Aviation Policy, 2016 wherein it has been specifically stated that "To ensure uniformity and level playing field across various operators, future tariffs at all airports will be calculated on a 'hybrid till' basis, unless otherwise specified for any project being bid out in future". Therefore, a due weightage has been given to any project being bid out and it should be as per bidding document instead of cross subsidy at 30% of non-aeronautical revenue. Further as far as the OMDA and SSA are concerned, the language used is clear and unambiguous and the same merely states that '30% of the gross revenue generated by the JVC (DIAL) from the Revenue Share Assets' shall be used for cross-subsidy. Therefore, if the intent of the SSA was to use 'non-aeronautical revenue' and not 'revenue from Non-Aeronautical Assets' for cross-subsidy, then the same would have been expressly mentioned as has been done in the National Civil Aviation Policy, 2016. Hence, it is crystal clear that no revenue can be considered for 30% cross-subsidy by simpliciter adjusting the same under 'non-aeronautical revenue' which is not even defined in the OMDA or the SSA.

In view of the above, it is submitted that since neither is the disallowed area covered under Non-Aeronautical Assets as defined in the OMDA, nor is the revenue from the disallowed assets covered under revenue from Revenue Share Assets, the said revenue cannot be included for the purpose of 30% cross-subsidy. It is submitted that such treatment of the revenue goes against the basic tenets of the OMDA and the SSA and the same is therefore, not only contrary to the said agreements but is also in contravention of the Judgment dated 23.04.2018 passed by the TDSAT wherein it has held that the OMDA and the SSA are sacrosanct and therefore, the terms of the same are necessarily required to be taken into consideration for the purpose of determination of tariff by AERA.

Also, since neither DIAL raised this issue in the earlier control periods nor did AERA consider the said contention in the earlier control periods, AERA's proposal to rely on the tariff order passed for the earlier control periods is unwarranted and misplaced and the said issue therefore requires fresh consideration keeping the express terms of the OMDA and SSA in mind. It is therefore requested that AERA may consider the said submissions and accordingly, reconsider its proposals to reflect the true intent and spirit of the Project Agreements.

Even in case of the airport guideline provided by Authority in case of the airport other than Delhi and Mumbai the revenue and expenditure should also be excluded along with the exclusion of the asset from RAB. Following is the relevant extract from para 5.2.1 (g) of AERA (Terms and Conditions for Determination of Tariff for Airport Operators) Guidelines, 2011 dtd. 28th Feb'2011:

> *"Consequent to the exclusion of identified assets from RAB, the Authority shall not consider the value of such assets (including its corresponding revenues and expenditures) for the purpose of determination of Aggregate Revenue Requirement."*

Accordingly, we request authority to kindly consider DIAL's submission positively and do not considered revenue from disallowed area as part of revenue share assets for cross subsidy.

2.3.3 Revenue from existing assets

Authority examined DIAL's submission on revenue from existing asset at para 2.6.17. Following are the relevant extract of Authority's examination and our pointwise response:

Authority's observation

…The Authority has looked at the terms of the OMDA and the definition of Existing Assets is presented below;

> *""Existing Assets" means the physical, tangible, intangible and other assets of whatsoever nature existing at the Airport Site as on the date hereof except working capital assets other than inventory, stores and spares."*

The Authority is of the view that Existing Assets don't share a mutually exclusive relation with aeronautical or non-aeronautical assets and the term Existing Assets has been defined as such to demarcate and identify those assets already existing prior to the execution of OMDA…

….As these Existing Assets are forming part of the terminal building, are conjoined to other aeronautical assets, are incapable of independent access and independent existence, and are predominantly servicing/catering terminal complex/cargo complex, exclusion of the revenue from Existing Assets is not justified. Authority is of the view that as long as the non-aeronautical revenues accrue to the Concessionaire from Existing Assets, the same has to be considered for cross subsidization….

DIAL's response

The submission made by DIAL has been disallowed by AERA primarily on the ground that

a) Existing Assets and Non-Aeronautical Assets are not mutually exclusive.

b) It has further been stated by AERA that as long as 'non-aeronautical revenues' accrue to DIAL from Existing Assets, the same has to be considered for cross subsidization;.

c) It has also been stated by AERA that if the intent of SSA was to exclude revenue from Existing Assets from the purview of revenue from Revenue Share Assets then the definition in the SSA would have specifically stated so;.

d) The expression "irrespective of whether they (Non Aeronautical Assets) are owned by the JVC or any third entity" cannot be interpreted as "Existing Assets owned by AAI" have to be excluded from such Revenue Share Assets;

e) It is also the stand of AERA that ownership of the Assets by the JVC or any other entity shall not be criteria for exclusion of revenues as long as the revenues accrue to the JVC;

f) AERA has also taken a stand that the submission itself seems to be an afterthought as no such issues were raised at the time of tariff determination for the last two Control Periods and the current submission refers to the interpretation of the unwritten words in the SSA;

As such, AERA while disregarding the 'ownership test', to determine whether an asset falls under the ambit of 'Non-Aeronautical Asset' or not, has stated that as long as the revenue accrues to DIAL, the same would not be excluded.

It is submitted that all the above views and stands taken by AERA lack merit. These just seem to be the stands taken for the reason that DIAL inadvertently missed to bring the contractual position to the attention of AERA on the earlier two occasions and now AERA is unwilling to have proper and deeper review of the provisions of OMDA. AERA, instead of taking the submissions of DIAL in the right earnest has attempted to brush them aside on the grounds which lack sound basis. The proposal made by AERA in its Consultation Paper fails to take into consideration the express terms of the OMDA whereby the definition of Aeronautical Assets, Non-Aeronautical Assets and Existing Assets makes it crystal clear that the two are completely and absolutely mutually exclusive. As per the definition of Non-Aeronautical Assets given in the OMDA, the same would include:

i. All assets required for the performance of Non-Aeronautical Services listed in Part I of Schedule 6.
ii. All assets required for the performance of Non-Aeronautical Services listed in Part II of Schedule 6, if they are (a) located within terminal building, (b) conjoined to other aeronautical assets and without direct access, or (c) are predominantly servicing/ catering any terminal complex/ cargo complex.
iii. And shall include all additional land (other than the Demised Premises), property and structures thereon acquired or leased during the Term, in relation to such Non-Aeronautical Assets.

The definition of Non-Aeronautical Assets starts with the term 'Non-Aeronautical Assets shall mean:" and the same therefore implies that the definition of Non-Aeronautical Assets is exhaustive and that no other assets, except for the ones which fall within the express ambit of the said definition, can be classified as Non-Aeronautical Assets. The aforementioned contention is also supported by the judgement passed by the Hon'ble Supreme Court in matter titled 'Union of India v. Assn. of Unified Telecom Service Providers of India' (2011) 10 SCC 543, wherein it was held as follows:

"46. A reading of Section 14(a)(i) of the TRAI Act would show that the Tribunal has the power to adjudicate any dispute between a licensor and licensee. A licensor, as we have seen, has been defined under Section 2(es) of the TRAI Act to mean the Central Government or the Telegraph Authority who grants a license under Section 4 of the Telegraph Act and a licensee has been defined in Section 2(e) of the TRAI Act to mean any person licensed under sub-section (1) of Section 4 of the Telegraph Act providing specified telecommunication services. ***The word "means" in Section 2(e) and 2(ea) of the TRAI Act indicates that the definitions of license and licensor are exhaustive and therefore would not have any other meaning. As Justice G.P. Singh puts it in his book Principles of Statutory Interpretation, 12th Edn. At pp, 179-80:***

" When a word is defined to 'mean' such and such, the definition is prima facie restrictive and exhaustive;"

(emphasis supplied)

Therefore, it is only the assets which fall within the aforementioned 3 categories of assets which can be considered as Non-Aeronautical Assets.

Further, a plain reading of the definition of Non-Aeronautical Assets makes it clear that the said definition is qualified by the statement "whether owned by the JVC or any third Entity". In terms of the definition of 'Entity' as given in OMDA and the definition of 'third party' as defined in the Lease Deed, it is evident that third Entity as mentioned in the definition of Non-Aeronautical Assets, cannot include AAI. As such, the express words, "whether owned by the JVC or any third Entity", which are there in the definition of Non-Aeronautical Assets, makes it clear that the same are meant to ensure that only the assets which are owned by DIAL or a third party, which then further fall into any one of the three categories listed above, are amenable to be included as a Non-Aeronautical Asset. Therefore, any asset which is under the ownership of AAI and is merely being leased to DIAL for the Term and to the extent same is not categorized as the Aeronautical Asset, is outside the purview of the same and cannot be called as Non-Aeronautical Asset under OMDA. The expression "irrespective of whether owned by JVC or third party" in fact provides clarity to interpret the definition of Non Aeronautical Assets. It is stated that if the aforesaid meaning is not ascribed to the express words of the definition of Non-Aeronautical Assets, then the said words would be rendered otiose and nugatory.

It is submitted that if the intention of the OMDA was to include assets owned by AAI in Non-Aeronautical Assets, then the same would have been expressly mentioned such that qualifying sentence the qualification would have either been stated read as 'whether owned by the JVC or the AAI or any third Entity' or the said qualification with respect to ownership of the assets would have been completely omitted from the definition. However, since the qualification is expressly present in the definition of Non-Aeronautical Assets and the words 'owned by AAI' are conspicuous by their absence in the same, it clearly shows that the assets owned by AAI and leased to DIAL, i.e., Existing Assets/ Demised Premises, have been left out of the purview of Non-Aeronautical Assets. Further it a settled legal position that in the express words no new words can be added to give a meaning different from what is stated in a contract. When the word "AAI" is specifically omitted from the sentence, it means it is specifically and intentionally excluded and therefore the Existing Assets owned by AAI are not the part of Non-Aeronautical Assets.

As such, the proposal of AERA to disregard the 'ownership test' to determine whether an asset falls within the purview of Non-Aeronautical Assets or not is not only contrary to the well-known principles of

interpretation of contracts but is also in contravention of the judgment dated 23.04.2018 passed by TDSAT vide which it has been held that the OMDA and the SSA are sacrosanct and the same have to be given due consideration and precedence while determining tariff under Section 13 of the AERA Act, 2008. Therefore, it is submitted that AERA's proposal whereby the words 'whether owned by the JVC or any third Entity' have been given a complete go-by without even a cursory consideration is required to be reconsidered and reassessed.

Further, even while further analysing the definition of Non-Aeronautical Assets it can be seen that while the first two categories of Non-Aeronautical Assets are qualified by the term 'whether owned by the JVC or any third Entity', the third category of Non-Aeronautical Assets are qualified by the term 'other than Demised Premises', which also goes to show the intention of the OMDA to leave the Existing Assets/Demised Premises outside the purview of Non-Aeronautical Assets. As such, if the intention of the OMDA was to keep Existing Assets/Demised Premises as a part of Non-Aeronautical Assets, then there would have been no need to qualify even the third category with the term 'other than Demised Premises'. However, the said qualification has been made for the express purpose of ensuring that not only do Existing Assets/Demised Premises remain outside the purview of Non-Aeronautical Assets as of the date of execution of the OMDA, but even if any additional land/asset is acquired by DIAL during the Term which is to form a part of Non-Aeronautical Assets, then Existing Assets/Demised Premises should also remain outside the purview of the same. As such, the qualification given in the third category of Non-Aeronautical Assets is in line with the intention of the OMDA to keep Existing Assets/ Demised Premises outside the ambit of Non-Aeronautical Assets.

It has been further stated by AERA that if the intent of the SSA was to exclude revenue from Existing Assets from the revenue from Revenue Share Assets then it would have been stated so in no uncertain terms. It is submitted that it has been clearly and unequivocally stated in the SSA that it is only 30% of revenue from Revenue Share Assets which would be considered for cross-subsidy and that Revenue Share Assets majorly consist of Non-Aeronautical Assets (as evident from its definition) which as per the definition provided under OMDA mean the assets are owned by JVC or any third entity and excluding demised premises. Therefore, it is only 30% of revenue from Non-Aeronautical Assets which can be considered for cross-subsidy. Hence the provisions of SSA and OMDA are succinctly clear and only attempt to be made is to read and apply them in unison. When they are so read, the application will only in the manner as submitted by DIAL. As such, instead of expressly mentioning that revenue from Existing Assets is outside the purview of revenue from Revenue Share Assets, it has been positively reinforced that it is only the revenue from Revenue Share Assets (which by definition mostly entail Non-Aeronautical Assets) which is to be considered for 30% cross-subsidy. The foregoing automatically translates into the contractual position that 'no other revenue apart from revenue from Non-Aeronautical Assets is to be considered for cross-subsidy'. While the meaning conveyed by the scheme of OMDA and SSA is explicit and clear, AERA's proposal seems to overlook the same.

AERA has further also stated that as long as 'non-aeronautical revenue' accrues to DIAL from Existing Assets, the same has to be used for cross-subsidization. It is submitted that the said contention of AERA is wholly contrary to the scheme of the OMDA and the SSA which clearly lay down that it is 'revenue from Non-Aeronautical Assets' and not 'non-aeronautical revenue' which has to be used for cross-subsidization of target revenue. Further the said contention is also contrary to AERA's own stand as per the Order no.14/2016-17 wherein it is clearly stated that in case of Delhi and Mumbai airports, tariff will continue

to be determined as per SSA and not Hybrid till wherein 30% of non-aeronautical revenues will be cross-subsidize. Below is the extract of the same:

> *"The Authority, in exercise of powers conferred by Section I3(i)(a) of the Airports Economic Regulatory Authority of India Act, 2008 and after careful consideration of the comments of the stakeholders on the subject issue, decides and orders that :*
>
> *(i) The Authority will in future determine the tariffs of major airports under "Hybrid Till" wherein 30% of non-aeronautical revenues will be used to cross-subsidize aeronautical charges. Accordingly, to that extent the airport operator guidelines of the Authority shall be amended. The provisions of the Guidelines issued by the Authority, other than regulatory till, shall remain the same.*
>
> *(ii) In case of Delhi and Mumbai airports, tariff will continue to be determined as per the SSA entered into between Government of India and the respective airport operators at Delhi and Mumbai.*

Therefore, for using revenue for cross-subsidization it is not merely enough to ascertain that the same is revenue in the hands of DIAL or not but it also has to be seen whether the source from which such revenue is being generated is Revenue Share Non-Aeronautical Assets or not. It is submitted that the foregoing exercise is necessarily required to be done by AERA at the time of determination of Aeronautical Charges in order to ensure that the express terms of the OMDA and the SSA are being followed in letter and spirit as also mandated by the TDSAT vide its judgment dated 23.04.2018. For that matter, the reliance of AERA on 'non-aeronautical revenue' is also misplaced for the fact that the term 'non-aeronautical revenue' is neither defined nor finds a mention in the OMDA or the SSA and therefore no reliance can be placed thereon to interpret the clear and express terms of the contracts. Therefore, any revenue which has not come from Non-Aeronautical Assets, would lie outside the purview of AERA and the same cannot be considered either as revenue from Revenue Share Assets or for 30% cross-subsidy.

The foregoing can also be seen in juxtaposition with the National Civil Aviation Policy, 2016 wherein it has been specifically stated that "To ensure uniformity and level playing field across various operators, future tariffs at all airports will be calculated on a 'hybrid till' basis, unless otherwise specified for any project being bid out in future". Therefore, a due weightage has been given to any project being bid out and it should be as per bidding document instead cross subsidy at 30% of non-aeronautical revenue. Further as far as the OMDA and SSA are concerned, the language used is clear and unambiguous and the same merely states that '30% of the gross revenue generated by the JVC (DIAL) from the Revenue Share Assets' shall be used for cross-subsidy. Therefore, if the intent of the SSA was to use 'non-aeronautical revenue' and not 'revenue from Non-Aeronautical Assets' for cross-subsidy, then the same would have been expressly mentioned as has been done in the National Civil Aviation Policy, 2016.

Further, in the Consultation Paper AERA has also stated that the submissions made by DIAL in respect of revenue from Existing Assets is an afterthought and that the same have not been made in the first two control periods. In this regard it is submitted that the AERA has failed to take into consideration the mere bringing the attention of AERA to the express provision at this time is not a ground for rejection of the submission, particularly when the same bears its genesis under the contract. Inadvertent error in making such claim earlier cannot and should not be called as an afterthought. This only reflects that the submission has been just ignored without looking into the merit of the same. AERA should in fact

appreciate fact that OMDA and SSA are extremely complex agreements which are the first of their kind to be entered into between any parties in the aviation sector. As such, arriving at the correct and proper interpretation of the scheme of the said agreements is an ongoing intensive process which is being undertaken by DIAL in order to properly assist AERA in its function of determination of tariff. As such, it is only for assisting AERA in its statutory function of determination of tariff that the aforementioned submissions are being made by DIAL for the correct and proper interpretation and application of the terms of the Project Agreements. Also, since neither DIAL raised this issue in the First Control Period nor did AERA consider the said contention in the earlier control periods, AERA's proposal to rely on the tariff order passed for the First Control Period is unwarranted and misplaced and the said issue therefore requires fresh consideration keeping the express terms of the OMDA and SSA in mind, as brought up by DIAL.

It is therefore requested that AERA may consider the said submissions and accordingly, reconsider its proposals to reflect the true intent and spirit of the Project Agreements.

2.3.4 Treatment of Annual Fee pertaining to Revenue Share Assets

Authority's key observations at para 2.6.18 are as follows

The Authority has noted that this submission along with the justifications is being raised by DIAL for the first time and has not been raised in the earlier tariff proposals for the first two control periods or before the relevant Courts and seems only an afterthought. The Authority has examined the provisions referred to by DIAL in the OMDA and SSA.

Clause 3.1.1 of the SSA makes it very clear that no pass-through would be available in relation to the Annual Fee. The same has been built in the past tariff orders and orders have been issued ensuring that the operator doesn't recover the Annual Fee through any tariff determination principle. The Annual Fee definition as per Article 11 of the OMDA very clearly brings out that it is 45.99% of the total revenue of the company, i.e. both aeronautical as well as non-aeronautical revenue and clause 3.1.1 states specifically that no pass through is permitted.

The same is logical as the Annual Fee is the percentage quoted to win the airport project and hence shouldn't form part of pass-through costs and has to be incurred by the airport operator on their own from the concession awarded to them to earn revenues.

The Authority has also looked at the Schedule 1 of the SSA which defines S Factor as below;

"S = 30% of the gross revenue generated by the JVC from Revenue Share Assets. The costs in relation to such revenue shall not be included while calculating Aeronautical Charges"

The context in which costs are mentioned here in the SSA refers to the costs associated with generating gross Revenue from Revenue Share Assets and same shall not be allowed as pass-through while calculating aeronautical revenues. The inference by DIAL that Annual Fee pertaining to revenue from Revenue Share Assets should not be considered as a cost and should be deducted from the revenue from Revenue Share Assets doesn't have any relevance to the context the definition is meant for.

Clearly the proposal of DIAL to exclude revenue share of 45.99% pertaining to the Revenue from Revenue Share Assets is tantamount to allowing the pass-through of the Annual Fee paid with regards to Revenue Share Assets which is against the tariff setting principles as given in SSA.

Therefore, Authority proposes not to exclude the Annual Fee on the Revenue from Revenue Share Assets while arriving at the S Factor.

DIAL's response

The submission made by DIAL has been disallowed by AERA primarily on the ground that deduction of Annual Fee while calculating revenue from Revenue Share Assets would tantamount to allowing the pass-through of the Annual Fee paid with regards to Revenue Share Assets and that the same would be against the tariff setting principles as given in SSA. It is submitted that the aforementioned contention of AERA, is not only contrary to the interpretation of the terms of the OMDA and SSA but is also based on a wrong understanding of what 'passing-through' of cost means in terms of the said Agreements.

It is submitted that passing through of a cost means that the said cost is recovered from the users as a part of the Aeronautical Tariff. In this regard it is submitted that in accordance with SSA, the Annual Fee is not a pass through in tariff and AERA has already followed the said principal while allowing aeronautical operating expense for the calculation of Aeronautical Charges. AERA has not considered Annual Fee while allowing aeronautical expense. DIAL has never claimed for inclusion of Annual Fee as a part of costs (opex) nor claimed pass through of Annual Fee. Similarly, Annual Fee payable on revenue from Revenue Share Assets is also not included as part of Opex in any of the building blocks.

Further, while relying on the definition of Revenue as found in the OMDA, AERA has stated that it has been mentioned in the said definition that Annual Fee cannot be deducted from Revenue. But such definition is only for the purpose of calculation of AF and DIAL does not deduct it from its revenues. By seeking the deduction of AF on revenue share assets DIAL is not reducing the quantum of entitlement of AAI. Further, while making the said observation AERA has failed to take into consideration that the Revenue as defined in the OMDA is different from the 'revenue' mentioned in the definition of S factor. Therefore, the definition of 'Revenue,' which is a defined term and allows for deduction of 5 items, cannot be inserted in place of 'revenue,' which restricts non-deduction of the costs in relation to such revenue, to interpret the definition of S Factor. The consideration given by AERA in this regard has led to an obvious misinterpretation of the terms of the OMDA and the SSA as well as of the submission made by DIAL in respect of deduction of Annual Fee.

It has been further stated by AERA that if the intent of SSA and OMDA was to deduct the Annual Fee while arriving at revenue from Revenue Share Assets in the calculation of S Factor then the same would have been spelt out clearly. However, DIAL submits that it being a specific provisions wherever Annual Fee is not allowed it is clearly mentioned in SSA/OMDA. Thus, if the intention was not to allow the Annual Fee relating to Revenue Share Assets then it would have been clearly mentioned in clause 3.1.1. However, the specific words mentioned are the cost in relation to such revenue shall not be included (deducted). The foregoing, automatically translates into the contractual position that Annual Fee with respect to Revenue Share Assets, which is not a cost in relation to revenue from Revenue Share Assets is not prohibited to be deducted while calculating the S factor. While the meaning conveyed by the scheme of OMDA and SSA is explicit and clear, AERA's proposal seems to overlook the same.

Further, in the Consultation Paper AERA has also stated that the submissions made by DIAL in respect of deduction of Annual Fee is an afterthought and that the same have not been made in the first two control periods. However, such statement does not bear any sound legal justification. If any provisions has not been correctly interpreted law does not debar the application of correct interpretation at the time when

it comes to the knowledge of the party. DIAL, is in fact assisting AERA in its statutory function of determination of tariff by respecting the terms of concession granting to it.

It is therefore requested that AERA should consider the said submissions and accordingly, reconsider its proposals to reflect the true intent and spirit of the Project Agreements.

3 True up of second control period

3.1 RAB allocation

At para 3.2.12 Authority has provided few re–segregation in the asset. We have following submission regarding the observation made by Authority:

Particular	Outcome of study	DIAL submission
EPOS system integration to CCTV	The independent study determined that the costs related to software for monitoring retail sales integrated to CCTV to plug revenue leakage are non-aero in nature. Hence, the assets are re-segregated as 100% non-aeronautical.	The stated CCTV system is not just only for preventing revenue leakage but also for maintaining airport security, passenger movement etc. hence it should be considered as aeronautical. Study suggest this to be 100% non-aeronautical which is not correct and not in line with the intended use of the asset. At the least it should be considered common asset.
New Udaan Bhawan	NUB premises are commonly used for operations of GMR group. Thus, the allocation is revisited to exclude total space and costs pertaining to area rented out to group entities. The balance costs are segregated on the weighted average terminal space.	Independent study suggest that 19.53% of the NUB area has been let out and balance has been allocated into weighted average terminal ratio. Under the table 25 of the asset allocation report of RS & CO the area for third floor NUB building occupied by DIAL has been shown as 1535 sqm. However, the area occupied by DIAL for the indicated floor in NUB is 2303 sqm for the entire period of CPIII. The error needs be corrected.
Senior management development	Senior management is entrusted with the responsibilities at the Group level. As it is not feasible for the independent study to determine the proportion of man-hours spent by senior management for group companies, the independent study has reallocated the expenses on an assumption of 50:50 for aero and non-aero.	The senior management refers to the DIAL's senior management. All other group companies have their own expenditure corresponding to the asset and opex purchased for senior management in their organisation. Hence, such asset is specific to DIAL and has to be considered as common asset instead of an assumption of 50:50 for aero and non-aero.

Common transit house	The purpose of visit of transiting personnel cannot be determined, an assumption of 50:50 allocation for aero and non-aero is considered for re-segregation.	DIAL is entrusted of the business of aeronautical and non-aeronautical services Therefore we request the Authority to continue to treat the common transit house as common asset and allocation as proposed based on assumption of 50:50 is to be reconsidered.

3.2 Return on Refundable Security Deposit (RSD)

Authority in second control period has allowed return on RSD at 9.28% which the average cost of debt. In this regard we would like to submit that as per para 2.1.2 above RSD has equity like features hence it should be treated as Quasi Equity and should be allowed return equivalent to 16%.

Without prejudice to above in case authority considers the cost of debt as the opportunity cost then it should be equivalent to cost of debt at which rupee term loan was available to DIAL. The cost of rupee term loan for second control period was 11.38% as allowed by AERA and considered efficient in the second control period order no 40/2015-16. Accordingly, Authority should allow return on RSD equivalent to cost of rupee term loan.

3.3 Calculation of depreciation

The determination of Aeronautical Charges for IGI Airport, New Delhi is done on the basis of the methodology laid down in the SSA in accordance with the formula stated below:

$$TR_i = RB_i \times WACC_i + OM_i + D_i + T_i - S_i$$

Therefore, the calculation of Target Revenue for a particular Control Period is to be preceded by the calculation of Regulatory Asset Base for the same Control Period which is RB_i in the above mentioned formula. The said regulatory base is calculated as an average of the regulatory base at the beginning of the period 'i' (Opening RAB) and the regulatory base of at the end of the period 'i' (Closing RAB). The mathematical calculation of the same is represented by the following formula:

$$RB = \frac{Opening\ RAB\ (RB_0) + Closing\ RAB\ (RB_{1)}}{2}$$

Further, the calculation of Closing RAB is to be done according to the formula given below:

$$Closing\ RAB = Opening\ RAB - Depreciation + Investment$$

For the calculation of RB for a year, the formula for Closing RAB can be substituted in the formula for RB and the same would result in the following formula:

$$RB = \frac{Opening\ RAB\ (RB_0) + Closing\ RAB\ (RB_1)}{2}$$

$$\Rightarrow RB = \frac{Opening\ RAB\ (RB_0) + (Opening\ RAB\ (RB_0) - Depreciation\ (D_1) + Investment\ (I_1))}{2}$$

$$\Rightarrow RB = \frac{2 * Opening\ RAB\ (RB_0) - Depreciation\ (D_1) + Investment\ (I_1)}{2}$$

$$\Rightarrow RB = \frac{2 * Opening\ RAB\ (RB_0)}{2} - \frac{Depreciation\ (D_1)}{2} + \frac{Investment\ (I_1)}{2}$$

$$\Rightarrow RB = Opening\ RAB\ (RB_0) - \frac{Depreciation\ (D_1)}{2} + \frac{Investment\ (I_1)}{2}$$

Further, since it is possible that the investment may be made only for a part of the period for which the Regulatory Asset Base is being calculated, the Investment to be used for the calculation of Regulatory Asset Base is calculated on a pro-rate basis ($i.e., Actual\ no.of\ days/365\ days$). Therefore, assuming the period for which the Regulatory Asset Base is being calculated is one year (365 days), the formula for calculation of RB can be derived as under:

$$RB = Opening\ RAB\ (RB_0) - \frac{Depreciation\ (D_1)}{2} + \left[Investment\ (I_1) \times \left(\frac{Actual\ no.of\ days}{365}\right)\right]$$

Where Actual no. of days are the number of days out of the year for which the investment had been made, by doing so Investment during the year has been averaged out.

Therefore, the formula as per which the Regulatory Base is to be calculated for the purpose of determination of Target Revenue is as elaborated above. However, as a part of its tariff filing, DIAL has inadvertently not used the formula above and has instead used the formula given as under:

$$RB = Opening\ RAB\ (RB_0) - Depreciation\ (D_1) + \left[Investment\ (I_1) \times \left(\frac{Actual\ no.of\ days}{365}\right)\right]$$

Therefore, evidently the formula being used by DIAL is '$Depreciation$' instead of '$Depreciation/2$' (depreciation averaged out) as is required to be used in terms of the correct formula, thereby leading to an erroneous calculation of the Regulatory Asset Base.

The correct calculation for Regulatory Asset Base (RAB) is given as below for CP1 & CP2:

For First control period:

(₹ in Crores)

For the year ended March 31,	2010	2011	2012	2013	2014
A. Opening RAB	1,016.47	2,023.30	4,772.25	7,838.84	7,201.60
B. Additions Prorata					
- Relating to Current Year	522.02	4,429.62	362.20	33.59	98.41
- Relating to Previous Year carried forward to Current year	876.42	37.05	3,976.69	10.36	40.47
Total (B)	**1,398.44**	**4,466.67**	**4,338.89**	**43.95**	**138.88**
C. Depreciation and others					
- Deletion	6.73	-	0.01	0.56	0.03
- DF Adjustments	295.17	1,423.74	923.90	370.92	-
- Disallowance by AERA	-	93.19	-	-	80.39
- Depreciation	89.71	200.79	348.39	309.71	340.79
Total (C)	**391.61**	**1,717.72**	**1,272.30**	**681.19**	**421.21**
D. Closing RAB (A + B - C)	**2,023.30**	**4,772.25**	**7,838.84**	**7,201.60**	**6,919.27**
HRAB					
E. Opening HRAB	467.00	446.11	425.91	404.66	383.10
F. Depreciation on HRAB	20.89	20.20	21.25	21.56	25.72
G. Closing HRAB (G = E - F)	**446.11**	**425.91**	**404.66**	**383.10**	**357.38**
RAB to be considered by the Authority for the purpose of Return on Investment					
I. Average RAB - Otherthan HRAB (I = A + B - C/2)	2,219.11	5,631.11	8,474.99	7,542.20	7,129.88
II. Average RAB - HRAB (II = E - F/2)	456.56	436.01	415.29	393.88	370.24
Total - (III = I + II)	**2,675.66**	**6,067.12**	**8,890.28**	**7,936.08**	**7,500.12**

For Second control period

₹ in Crores

For the year ended March 31,	2015	2016	2017	2018	2019
A. Opening RAB	6,919.27	6,424.09	5,965.99	5,561.02	5,131.20
B. Additions Prorata					
- Relating to Current Year	16.26	20.52	30.75	20.43	252.14
- Relating to Previous Year carried forward to Current year	15.18	28.06	79.67	77.67	35.76
Total (B)	**31.44**	**48.58**	**110.42**	**98.10**	**287.90**
C. Depreciation and others					
- Deletion	22.26	1.15	2.05	9.15	2.51
- DF Adjustments	-	-	-	-	117.95
- Disallowance by AERA	-	-	-	-	-
- Depreciation	504.36	505.53	513.34	518.77	526.58
Total (C)	**526.62**	**506.68**	**515.39**	**527.92**	**647.04**
D. Closing RAB (A + B - C)	**6,424.09**	**5,965.99**	**5,561.02**	**5,131.20**	**4,772.06**
HRAB					
E. Opening HRAB	357.38	329.52	301.79	273.93	245.97
F. Depreciation on HRAB	27.86	27.73	27.86	27.96	27.35
G. Closing HRAB (G = E - F)	**329.52**	**301.79**	**273.93**	**245.97**	**218.62**
RAB to be considered by the Authority for the purpose of Return on Investment					
I. Average RAB - Otherthan HRAB (I = A + B - C/2)	6,687.40	6,219.33	5,818.72	5,395.16	5,095.58
II. Average RAB - HRAB (II = E - F/2)	343.45	315.66	287.86	259.95	232.30
Total - (III = I + II)	**7,030.85**	**6,534.99**	**6,106.58**	**5,655.11**	**5,327.88**

In light of the foregoing, it is requested that the error which has been committed by DIAL in calculation of Regulatory Asset Base may be allowed to be rectified so that the SSA can be followed in its letter and spirit.

3.4 True up of operating cost

3.4.1 Outcome of the independent study

Authority at para 3.5.9 has considered outcome of independent study and accordingly revised the allocation of various operating expenditures. Following is the summary of the outcomes where we have our comments:

Particular	Outcome of study	DIAL submission
Landscaping expense	This cost is for entire Terminal, approach roads to Terminals and the admin office serving both Aero and Non-Aero facilities. Hence this expense is segregated as "Common" and segregated in the proportion of the weighted average terminal space i.e. 84.10%:15.90%	Landscaping cost provides aesthetic look of the terminal and gives feel good factors to the passengers and airport users. It is an essential expense and there is no commercial revenue generated by DIAL from this. The landscaping expense will be incurred irrespective of any commercial objective in mind. Landscaping provide customer satisfaction and helps in improving airport quality parameters. DIAL has earned various awards for environment, the landscaping plays vital role in reducing carbon footprint. By disallowing the cost of landscape it is not only dis-incentivising the airport operator but also discouraging the spend towards green environment. The landscaping form part of the airport infrastructure irrespective of any commercial development or not. Further, it is associated with the approach to the terminal and hence an integral part of aeronautical assets. Accordingly, we would like to submit that landscaping being part of the approach to the airport should be considered as aeronautical.
Quality management cost	Quality Management Team, work for overall improvement of Airport operations and aren't specific to Aeronautical operations. Hence the costs are classified as "Common" and segregated in proportion of Adjusted Gross Fixed Asset Ratio of 88.92%: 11.08%.	In accordance with clause 9.1 read with schedule 1 and schedule 2 of OMDA, DIAL is obligated to provided quality of service to all airport users. Also, as per OMDA DIAL has to monitor its quality standard and need to benchmark it quality standard of top 5 international airport in Asian region. This cost is kind of mandatory cost which DIAL has to incur to maintain, measure & monitor and promote quality standards at Airport and provide quality services to all airport users.

Particular	Outcome of study	DIAL submission
		DIAL has to incur this cost irrespective of nature of service whether aero or non-aero. In case any part of such cost is disallowed by AERA it will not be in accordance with allocation principle followed and also will not be in line with the contractual rights and obligation of DIAL. In past also this cost has been allowed 100% aeronautical by the Authority. Accordingly, we request authority to consider the quality cost as 100% aeronautical expenditure as considered in the previous tariff orders.
Chartering expense	Auditor suggested to allocate this expense on 50:50 basis as this has been used by senior management who allocate their time to other businesses as well.	This expense is in accordance with the DIAL board approval. The usage is restricted to Group Chairman, M.D, E.D and other senior executives of DIAL as they have to fly from Delhi to various other locations on DIAL's work Accordingly, we request to consider it allocated in common ratio.
Charity and donation	These expenses are not related to passenger or airline services, these costs are segregated as 100% Non-Aeronautical.	Charity and donation is cause of social responsibility. The charity and donation has been undertaken by an entity in the interest of the society dependent on it. Hence, these expense should be allowed at least as common. Disallowance of these expenses will discourage the organization to undertake social works.
Payment to AAI for VRS	As the segregation based on the manpower count per department isn't representative to the proportion of the associated cost of the department, the segregation logic has been revisited as the segregation was revised in the proportion of Adjusted Gross Fixed Asset Ratio (88.92%)	Authority at para 17.27 revised the allocation of AAI VRS based on manpower count per department into Aeronautical and Non-Aeronautical costs. Following is the extract of para 17.27 order 40/2015-16: *The Authority had also noted that Payment to AAI for VRS as an expense has been allocated by DIAL at the weighted average value of the operating expense and the same was considered by the Authority in its Delhi Tariff Order 03 / 2012-13. The Authority had reconsidered its approach and is of the opinion that VRS expense is on account of manpower and its related costs and accordingly proposed to consider the allocation of VRS payment to AAI into aeronautical and non-aeronautical components at the rate of allocation of manpower costs in the second Control period.*

Particular	Outcome of study	DIAL submission
		AAI VRS cost is a onetime cost and the allocation principle once settled should be continued for the balance period. There is no base for departure from the agreed principle. Hence, we request Authority to continue with the agreed principle in first control period.

3.4.2 Operating expense for second control period

Forex loss

Authority in order no 40/2015-16 at para 8.25 mentioned

> *The Authority is of the view that in case it were to consider foreign exchange rate fluctuations by expensing out actual losses on this account, it would also true up the WACC (including actual interest rates on domestic term loan). The Authority had communicated to DIAL to consider foreign exchange losses along with true-up of WACC.*

Authority in the order for second control period had mentioned that it will consider the forex loss subject to WACC true up. Authority has one side trued up the WACC but other side did not considered the entire forex loss actually incurred for the control period. Rather the legitimate amount is also reduced by adding financing charges while determining efficient cost. This was not the intent of the view formed by Authority in order 40 and it is clearly departure from its own stand which is not warranted.

DIAL with respect to refinancing cost of existing debt had to incur various expenditure like, break cost, upfront & processing fee and prepayment charges. Many of these cost are one time cost and administrative costs. These costs are not part of debt servicing and hence this should be considered as part of administrative cost. Authority while allowing the forex loss has considered the refinance charges also as part of cost of debt and compared the effective cost. This has resulted into artificial reduction in the pass through of forex losses. The study conducted by Authority's consultant for efficient opex also considered finance charges as efficient cost hence it is requested that Authority should give equal weightage to the recommendation given by independent consultant as they have considered their recommendations in other matters.

AERA in its order no 40/2015-16 dtd. 10th Dec'2015 at decision 10B has allowed cost of debt as 11.38% excluding any of these cost and hence the inclusion of refinance charges while comparing interest cost is not justifiable.

In light of the above we request authority to allow finance charges separately as part of administrative cost. In case it is not allowed the Airport Operator will be in a way penalized for putting effort in achieving lower cost of debt.

Accordingly we request authority to allow the actual forex loss incurred by DIAL. Even if Authority decides to restrict the forex loss to RTL then it is requested that Authority consider only forex loss while comparing effective cost of debt to 11.38% and allows the refinance charge as separate expenses.

Treatment of CSR expense

The Authority is of the firm opinion that CSR is an appropriation out of profits and thereby it does not consider CSR as part of operating expenses. Authority has hence proposed not to consider CSR as part of operating expense for the Second Control Period.

DIAL's response

In terms of tariff principle stated at Schedule 1 of the SSA, the commercial principle laid down following guiding path:

> *In setting the price cap, AERA will have regard to the need for the JVC to generate sufficient revenue to cover efficient operating costs, obtain the return of capital over its economic life and achieve a reasonable return on investment commensurate with the risk involved.*

The reasonable return determined by AERA currently 16% in case of first and second control period and 15.41% in case of third control period. There should be no further outgo by the airport operator from this return. As per SSAs the Airport Operator is eligible for fixed return hence any cost incurred by the airport operator has to be taken into consideration while allowing tariff. Hence, we request Authority to kindly allow the CSR expense as a pass through in tariff.

Further, as also recognized by the independent auditor constituted by AERA in its report at note 2 page 19 has stated that *"Being a registered Company, CSR expenditure is a statutory requirement as a business expense required to be spent for the purpose of continuing and maintaining the operations of the Company".* Hence, it may be seen that these are mandatory costs under companies act 2013 and not discretionary spent. The authority has considered CSR not to be allowed as it is an apportionment out of the profit. However, it may be perused that these are mandatory costs and only for the purpose of calculation of 2% mandatory spent the reference to profit in the previous year is derived.

We propose that the Authority may revisit the stand of disallowing the CSR in view of above arguments and consider the expenditure as a common expense between aero and non-aero.

3.4.3 True up of aeronautical tax

Authority at para 3.6.4 of the consultation paper has stated following:

> *Authority has taken cognizance of TDSAT direction to consider a consultative process to consider S factor as part of revenue for providing aeronautical taxes as a benefit as part of tariff determination process and has proposed to carry out the consultation process for determination of aeronautical taxes from the Third Control Period prospectively.*

DIAL's response

In accordance with the SSA, while determining tariff Authority subsidies the aero eligibility of DIAL calculated as per building block by 30% of revenue from revenue share assets. In other words some part of the aeronautical revenue is expected to be recovered through cross subsidy from revenue from revenue share assets. However, while determining tax Authority has not considered this 30% of revenue.

TDSAT in case of MIAL appeal no 4 of 2013 against the CP1 order of MIAL in its order dtd. 15th Nov'2018 at para 15 opined that:

"…by the provision in the Agreement, 'S' is an element of revenue on aero side and by the same yardstick must be added while calculating the 'T'. We find some merit in these arguments.."

Accordingly TDSAT vide Judgment at Para 41(i) remanded the matter of considering the S-Factor as part of revenue in calculation of tax, to AERA.

The Authority should consider the S-Factor in consideration for aeronautical tax for DIAL. Since, this is the issue of settling principle under the SSA the effect of such consideration should be taken from the first control period itself.

Accordingly, we request Authority to kindly take positive view on the subject matter.

3.5 True up of revenue from revenue share assets

3.5.1 Fuel throughput charges

As stated at para 2.3.1 above in this consultation paper response the FTC should be considered as revenue from revenue share assets in accordance with the concession agreement.

3.5.2 Other income

Authority at para 3.7.12 has mentioned following regarding treatment of other income:

The Authority at the time of tariff determination for the Second Control Period had considered Other Income as nil based on the projections submitted by DIAL for the Second Control Period. The Authority had also mentioned that Other Income shall be trued up based on actuals at the time of tariff determination for the Third Control Period.

Authority in line with its decisions taken at the time of the tariff order for the Second Control Period has only excluded Dividend Income as part of Revenue from Revenue Share Assets to be considered for the cross subsidization purposes:

DIAL's response

Concession provisions

As per Schedule 1 of the SSA, S Factor constitutes only revenue from accruing from Revenue Share Assets. The definition of Revenue Share Assets is as below:

"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 (e.g. Public admission fee etc.)

The definition of non-aeronautical assets under the OMDA is as follows:

"Non-Aeronautical Assets" shall mean:

all assets required or necessary for the performance of Non-Aeronautical Services at the Airport as listed in Part I of Schedule 6 and any other services mutually agreed to be added to the Schedule 6 hereof as located at the Airport (irrespective of whether they are owned by the JVC or any third Entity); and

all assets required or necessary for the performance of Non-Aeronautical Services at the Airport as listed in Part II of Schedule 6 hereof as located at the Airport (irrespective of whether they are owned by the JVC or any third Entity), to the extent such assets (a) are located within or form part of any terminal building; (b) are conjoined to any other Aeronautical Assets, asset included in paragraph (i) above and such assets are incapable of independent access and independent existence; or (c) are predominantly servicing/ catering any terminal complex/cargo complex and shall specifically include all additional land (other than the Demised Premises), property and structures thereon acquired or leased during the Term, in relation to such Non-Aeronautical Assets.

With regard to inclusion in revenue from revenue share assets the detailed submission has been made at para 2.3.2 which may be referred.

It is evident from the above that the revenue derived under the head of other income does not form part of revenue from Revenue Share Assets. Hence, the same cannot be considered as part of S-Factor for the calculation of aeronautical tariff under the scheme of the SSA awarded to DIAL.

These earnings, i.e. interest income, treasury income, etc. relate to investment of interim surplus funds and the retention of the share-holders' funds in the business till the same are paid out as dividends. Such incomes do not form part of either aeronautical or non-aeronautical revenues.

Accordingly, we request Authority to consider the terms of the concession provided to Delhi Airport. This is in accordance with the TDSAT order dtd. 23rd April 2018 for Delhi Airport wherein it decided that as per section 13 of the Act, AERA is required to respect rights/concession.

Principle settled in earlier orders

The Authority in First Control Period also excluded the revenues realised by the DIAL from "Other Income" including Interest Income, income from sale of investment, income from delayed payment, etc. as non-aeronautical revenue. Authority stand for first control period clearly stated in the second control period, the relevant extract is at para 6.43 of order no 40/2015-16 is reproduced below:

The Authority, during the determination of tariff for the first Control Period, had not considered the revenues realised by DIAL from "Other Income" (typically including Interest Received Deposit with Banks, Income from Current Investments, Income from Non-Current Investments, Interest received - Delayed payment, Sale of Others material/Scrap others, Profit on Sale of Depreciable

Assets, Dividend income, Realized Foreign Exchange Gain/Loss, Misc. income Others, Liquidated Damages received, Management Fee, Tender cost recovery) as non-aeronautical revenue.

However, in the order no 40/2015-16 at para 19.15 for second control period Authority had changed its stance and opined that the interest income will be treated as non-aeronautical revenue at the time of true up. Following is the extract of the order:

The Authority, for the time being, had projected this sub-head at 'nil' value for the second Control Period. However the Authority proposed to true up the "Other Incomes" based on the actual values realized by DIAL during the second Control Period at the time of tariff determination for the third Control Period.

This is the departure from the principle adopted in the First Control Period without giving any reasons for the same. This is against the consistency principal.

Double consideration of the income from treasury

Further it is important to note that Authority while truing up the under/over recovery in following control period considers the over/under collection with time value or carrying cost at the value of WACC arrived. This inter-alia means that the authority has considered any potential interest on the surplus during the control period with a rate of WACC. Such interest relates to the investment which can be made from the surplus amount at much higher rate as compared to the actual and also is considered 100% aeronautical in nature. Considering the treasury income over and above the present value of the surplus would lead to double accounting of the same income.

In view of the above the other income should not be considered in the determination of aeronautical charges.

3.6 Treatment of Base Airport Charges

Authority has following observations on the Base Airport Charges at para 3.8.7 of the consultation paper:

The tariff order was not implemented from January 1, 2016 till July 7, 2017 which is roughly three and quarter years of the Second Control Period during which the aeronautical charges levied by DIAL were much higher than the tariff applicable as per BAC plus 10%. However DIAL has not only collected these high aeronautical charges but also claimed compensation to the tune of the revenues that would have accrued as per BAC and has asked for the same to be trued up additionally. As per the SSA, BAC plus 10% is the floor revenue to protect the tariffs from falling below such Base Airport Charges and it is not an added revenue stream for true up when the actual aeronautical charges collected by DIAL are much higher than BAC plus 10%

DIAL claiming the BAC for the period from July 7, 2017 till December 1, 2018 along with the revenues collected as per the tariff order for the Second Control Period also lacks merit as the BAC is a revenue floor and not an added revenue stream. DIAL had continued to collect revenues as per the tariff order for the Second Control Period in this intervening period. DIAL's eligibility has to be the difference between the revenues as per BAC plus 10% and the Aggregate Revenue Requirement (ARR) provided to the airport operator, provided such ARR that has been assessed for the relevant period is lower than the revenues collected as per Base Airport Charges.

DIAL's response

Delhi International Airport Limited (DIAL) has been mandated to carry out the Aeronautical Services as listed out in Schedule 5 of the Operation Development and Management Agreement (OMDA) which was executed between DIAL and Airports Authority of India (AAI) on 04.04.2006 with respect to IGI Airport, New Delhi. In furtherance of the obligations of DIAL under the OMDA, the Government of India and DIAL also entered into the State Support Agreement (SSA) dated 26.04.2006.

In terms of Clause 3.1.2 of the SSA, it has been mandated that the Aeronautical Charges which DIAL is entitled to collect, are to be calculated in terms of Schedule 6 of the SSA. The said Clause 3.1.2 and Schedule 6 of the SSA are relevant and the same are reproduced hereinunder:

> *"3.1.2 The Aeronautical Charges for any year during the Term shall be calculated in accordance with Schedule 6 appended hereto. For abundant caution, it is expressly clarified that the Aeronautical Charges as set forth in Schedule 6 will not be negotiated post bid after the selection of the Successful Bidder and will not be altered by the JVC under any circumstances."*
>
> *….*
>
> *"Schedule 6*
>
> *Aeronautical Charges, for the purposes of this Agreement, shall be determined in the manner as set out hereunder:*
>
> *The existing AAI airport charges (as set out in Schedule 8 appended hereto) ("Base Airport Charges") will continue for a period of two (2) years from the Effective Date and in the event the JVC duly completes and commissions the Mandatory Capital Projects required to be completed during the first two (2) years from the Effective Date, a nominal increase of ten (10) percent over the Base Airport Charges shall be allowed for the purposes of calculating Aeronautical Charges for the duration of the third (3rd) Year after the Effective Date ("Incentive"). It is hereby expressly clarified that in the event JVC does not complete and commission, by the end of the second (2nd) year from the Effective Date, the Mandatory Capital Projects required to be completed and commissioned, the Incentive shall not be available to the JVC for purposes of calculating Aeronautical Charges for the third (3rd) year after the Effective Date.*
>
> *From the commencement of the fourth (4th) year after the Effective Date and for every year thereafter for the remainder of the Term, Economic Regulatory Authority/ GOI (as the case may be) will set the Aeronautical Charges in accordance with Clause 3.1.1 read with Schedule 1 appended to the Agreement, subject always to the condition that, at the least, a permitted nominal increase of ten (10) percent of the Base Airport Charges will be available to the JVC for the purpose of calculating Aeronautical Charges in any year after the commencement of the fourth year and for the remainder of the Term.*
>
> *..."*

Schedule 6 of the SSA, grants two rights/privileges in favour of DIAL. Clause 1 of Schedule 6 of the SSA provides a one-time 'Incentive' which would be available to DIAL on completion of Mandatory Capital

Projects within a stipulated time. On the other hand, Clause 2 of Schedule 6 of the SSA grants an assurance/vests the DIAL with the right to "at the least, a permitted nominal increase of 10 percent of the Base Airport Charges" which would be available to DIAL for calculation of Aeronautical Charges in any year after the commencement of the fourth year and for the remainder of the Term.

In terms of Clause 2 of Schedule 6 of the SSA, the GoI had assured/ undertaken that the calculation of Aeronautical Charges at IGI Airport which would be done in accordance with Schedule 1 of the SSA shall always be subject to, at the least, a permitted nominal increase of 10 percent of Base Airport Charges, in any year and for the remainder of the Term of the SSA (which is co-terminus with the OMDA).

As such, what is contemplated in Clause 2 of Schedule 6 of the SSA is a sovereign assurance in the nature of a safety net for DIAL in consideration of the obligations being undertaken by it, which would come into play the moment the Aeronautical Charges as calculated under Schedule 1 of the SSA, for any year would fall below the Base Airport Charges plus 10% thereof as set out in Schedule 8 of the SSA.

Therefore, a bare reading of the relevant provisions makes it evident that the intention of the SSA is that the AERA shall calculate Aeronautical Charges year on year in accordance with the principles laid down in Schedule 1 of SSA but at the same time it shall ensure that the Aeronautical Charges so calculated do not fall below the value of Base Airport Charges with the permitted nominal increase of 10 percent of Base Airport Charges, for any year during the Term. Consequently, if for any year the Aeronautical Charges calculated in accordance with Schedule 1 of the SSA, is less than the Base Airport Charges plus 10% thereof, then DIAL shall be permitted to levy the latter in terms of Clause 2 of Schedule 6 of the SSA.

As such, it has been assured in the SSA, that at the very least, for any year, DIAL would be entitled to levy Base Airport Charges (along with the permitted 10% increase) as Aeronautical Charges at the IGI Airport. From the aforementioned discussion, the principles which emerge are as under:

i. At the time of determination of Aeronautical Charges, AERA is mandated to calculate the same as per the principles enshrined in Schedule 1 of the SSA;
ii. The Aeronautical Charges so arrived at in terms of the calculation under Schedule 1 of the SSA are to be compared with the Base Airport Charges along with permitted nominal increase of 10%;
iii. If on comparing the Aeronautical Charges as calculated under Schedule 1 of the SSA, it is found that the same are lower than the Base Airport Charges with the permitted 10% increase, then DIAL shall be entitled to charging the latter charges.
iv. That for any year, DIAL is entitled to the higher of the two, i.e., Aeronautical Charges calculated under Schedule 1 of the SSA on the one hand and the Base Airport Charges along with 10% increase on the other hand, and the said entitlement is to be determined for each year in the control period, before the beginning thereof. Further, the entitlement of DIAL to either Aeronautical Charges under Schedule 1 or to Base Airport Charges plus 10% thereof shall remain in force for the entire Control Period.
v. Further, the same exercise would again be carried out by AERA for each year of the control period at the time of determining Aeronautical Charges for the next control period.

In view of the foregoing, it is relevant to examine the actions of AERA for the Second Control Period. The relevant portion of the Second Tariff Order is as under:

"25.16 The Authority would like to mention that the X-factor of plus96.08% is based on the date of implementation of new tariffs on 01.01.2016 that is, almost one year and nine months into the second Control Period…

…

Decision No. 22: Regarding the Tariff Structure/Rate Card to be considered for the second Control Period, based on the material before it and its analysis, the Authority has decided:

22.a To determine an X-factor of plus96.08% (with date of implementation of tariff as 01.01.2016) based on its decisions in respect of regulatory building blocks towards determination of aeronautical tariffs for the Second Control Period (01.04.2014 – 31.03.2019) for the IGI Airport, New Delhi.

…

Order

28.1 In exercise of power conferred by Section 13(1)(a) of the AERA Act, 2008 and based on the above decisions, the Authority hereby determines the aeronautical tariffs to be levied at IGI Airport, New Delhi for the Second Control Period (2014-15 to 2018-19), effective from 01.01.2016 and the rate card so arrived at as of 01.01.2016 upto 31.03.2019 has been attached as Annexure I to the Order. …"

In terms of the Second Tariff Order, the Aeronautical Charges under Schedule 1 of the SSA were calculated for the Second Control Period keeping in mind the implementation date of 01.01.2016. On a comparison of the Aeronautical Charges calculated under Schedule 1 as determined in the Second Tariff Order, with the Base Airport Charges plus 10% thereof, for each year, it can be ascertained that the said Aeronautical Charges under Schedule 1 are lower and therefore, DIAL is entitled to Base Airport Charges plus 10% thereof from 01.01.2016. Since, in terms of the Tariff Order for the Second Control Period, the date of implementation of the Aeronautical Charges for calculation under Schedule 1 of the SSA was taken to be 01.01.2016 and the said Aeronautical Charges are lower than Base Airport Charges with the 10% increase, the Base Airport Charges plus 10% should be applicable from 01.01.2016 itself as that is the date on which the Aeronautical Charges have gone below the Base Airport Charges plus 10% thereof.

That even though AERA has chosen 5 years as a Control Period as per AERA Act, 2008 and the Aeronautical Charges are therefore calculated by AERA for a total of 5 years, the comparison between Aeronautical Charges as calculated under Schedule 1 of the SSA and Base Airport Charges with a 10% increase, has to be done on a year to year basis in terms of the SSA. As such, even for the Second Control Period, which is from 01.04.2014 to 31.03.2019, the Aeronautical Charges as calculated from 01.01.2016 to 31.03.2016, 01.04.2016 to 31.03.2017, 01.04.2017 to 31.03.2018 and 01.04.2018 to 31.03.2019 are lower than the Base Airport Charges plus 10%. Therefore, for the aforementioned periods, the Base Airport Charges plus 10% should become the applicable Aeronautical Charges, whereas from 01.04.2014 to 31.12.2015, the Aeronautical Charges as calculated under Schedule 1 of the SSA should be applicable. It is submitted that it is the aforementioned charges, which should be considered to be the entitlement of DIAL for the Second Control Period regardless of the charges which were being levied by DIAL at the relevant time.

However, contrary to what should have been done in terms of the SSA, while passing its Order No. 30/2018-19 dated 19.11.2018, AERA even after holding that DIAL was contractually entitled to Base Airport Charges plus 10% thereof provided under Schedule 8 of the SSA plus10% thereof, in any year of the Term, made the said charges applicable from 01.12.2018 instead of 01.01.2016. It is also relevant to point out that the same was done even though in the Consultation Paper published by AERA before passing Order No. 30/2018-19, AERA had proposed that the date on which the minimum charges of Base Airport Charges plus 10% will be available to DIAL would be decided at a later date and that for the present the proposal was to allow DIAL to charge Base Airport Charges plus 10% from 01.07.2018 till the end of the Second Control Period. The relevant part of the said Consultation Paper is as under:

> *"4.2 Accordingly the Authority proposes the following:*
>
> *4.2.1 DIAL is entitled to maintain minimum aeronautical charges equivalent to BAC plus 10% of BAC in any year during the term of the concession in terms of its concession. It is proposed that DIAL be allowed to consider the charges as provided in the Schedule 8 of the SSA plus a one-time increase of 10% as the minimum aeronautical charges.*
>
> *4.2.2 The date on which minimum charges of BAC plus 10% of BAC shall be made available to DIAL will be worked out later while truing up the figures. For the present the Authority proposes to allow DIAL the aeronautical charges equivalent to BAC plus 10% from 1st July, 2018 to 31st March 2019.*
>
> *….*
>
> *4.2.5 The excess amount required by DIAL during the 2nd control period will be calculated separately and adjusted during determination of tariff for the third control period (01.04.2019-31.03.2024)."*

Further, despite having proposed that the relevant date from which DIAL is entitled of Base Airport Charges plus 10% would be decided at a later stage, AERA in its Order No. 30/2018-19 decided the said date to be 01.12.2018. The relevant portion of Order No. 30/2018-19, vide which DIAL was found to be entitled to Base Airport Charges plus 10% is as under:

> ***"4.4.3 Authority's views on BAOA's views***
>
> *The Section 13(1)(a)(vi) of the AERA Act provides that the Authority has to consider the concession offered by the Central Government in discharge of its function of tariff determination. The Authority while determining the tariff for DIAL has recognized the importance of the SSA in this regard. The Hon'ble Appellate Tribunal, TDSAT has also emphasized to honor the contractual obligations of the parties, unless there is a complete conflict between the agreement and the statute. The applicability of BAC plus 10% of BAC is governed by the Schedule 6 of the SSA between DIAL and Govt. of India and is therefore required to be considered by the Authority, in case the tariff determined by AERA under Section 13 of the AERA Act falls below the BAC plus 10% of BAC in any year during the term.*
>
> *…..*
>
> ***4.6.3 Authority's views on FIA Comments***

…….Further, the Authority has also evaluated the proposal and is of the view that the rates as given in Order No. 40/2015-16 have fallen below the Base Airport Charges as is evident from the comparison at Para 3.8 and Annexure 4 of the consultation paper. It may be noted that para 2 of Schedule 6 of the SSA says that at any time the airport charges fixed should not fall below BAC plus 10%. The said para speak about charge/rate and not revenue. So it is felt there is no scope to analyse any other aspect other than a single aspect whether the charges fixed are lower than BAC plus 10% as stated in the SSA (numerical comparison).

The Authority is of the view that the Base Airport Charges is the minimum tariff entitled to DIAL within the terms and provisions in SSA and OMDA. Hence, Authority is of the view that even if the appeal against 2nd Control Period is pending for adjudication, the BAC can be implemented.

…

5. ORDER

5.1 The Authority has scrutinized the stakeholder's comments and has taken note of the responses provided by DIAL. In terms of Concession granted to DIAL in reference specifically to Schedule 6 of the SSA, DIAL has a contractual right and is entitled to Base Airport Charges (BAC) provided under Schedule 8 of OMDA plus 10% of BAC in any year of the concession term. Accordingly in terms of Section 13(1)(a) of the AERA Act the Authority decides to consider the concession offered in determination of tariff.

5.2 Upon careful consideration of the Materials available on record, the Authority, in exercise of powers conferred upon it by Section 13(1)(a) of the AERA Act, 2008, hereby orders that:

5.2.1 DIAL is entitled to maintain minimum aeronautical charges equivalent to BAC plus 10% of BAC in any year during the term of the concession in terms of the SSA awarded by the Government.

5.2.2. Accordingly, the Authority decides to allow DIAL to charge the rate equivalent to BAC plus 10% of BAC effective from 1st December 2018. The applicable aeronautical charges effective from 1st December 2018 are therefore mentioned at Annexure-1."

It is submitted that since, the X-factor and the Aeronautical Charges for the Second Control Period were calculated taking the date of 01.01.2016 as the benchmark implementation date and it is these Aeronautical Charges which have been compared with the Base Airport Charges plus 10% thereof to determine whether the Base Airport Charges plus 10% thereof would be applicable or not. It is evident that the Base Airport Charges plus 10% thereof would be implemented on the same date as on which the Aeronautical Charges would have been implemented had the same been found to be higher in comparison to the Base Airport Charges plus 10% thereof. As such, while deciding whether the Aeronautical Charges as calculated under Schedule 1 of the SSA would apply or Base Airport Charges plus 10% thereof are to apply, the date of implementation would have to be kept constant which in the scenario of the Second Control Period is 01.01.2016 and not 01.12.2018 as decided by AERA in its Order dated 19.11.2018.

It is relevant to mention that in Order No. 30/2018-19 AERA even after rightly interpreting the intent of Clause 2 of Schedule 6 of the SSA, has not followed the same fully inasmuch as the date of entitlement of AERA to charge Base Airport Charges plus 10% thereof has been adjudged to be 01.12.2018. It is stated that in the said order AERA has stated that 'para 2 of Schedule 6 of the SSA says that at any time the

airport charges fixed should not fall below BAC plus 10%' and that with regard to the Second Control Period, 'the rates as given in Order No. 40/2015-16 have fallen below the Base Airport Charges plus 10% thereof as is evident from the comparison at Para 3.8 and Annexure 4 of the consultation paper'. However, despite holding the foregoing, AERA has failed to consider the fact that the Aeronautical Charges as on 01.01.2016 had gone below Base Airport Charges plus 10% thereof and therefore Base Airport Charges plus 10% thereof should have become applicable as on that day itself. On the contrary, as per Order No. 30/2018-19, Base Airport Charges plus 10% thereof became applicable only from 01.12.2018 which in turn has the effect of making the applicable Aeronautical Charges from 01.01.2016 to 30.11.2018 lower than Base Airport Charges plus 10%, which as per the SSA as well as by AERA's own interpretation cannot be a possibility.

AERA in Para 4.6.3 of its Order No. 30/2018-19 has also rightly held that for the purpose of giving effect to Clause 2 of Schedule 6 of the SSA what is required is a comparison of the Aeronautical Charges calculated in terms of Schedule 1 of the SSA to the Base Airport Charges plus 10% thereof and not that of the revenue therefrom. As such, the entitlement of DIAL with respect to Aeronautical Charges has to be done on a simpliciter comparison of the rates calculated under Schedule 1 to the rates of Base Airport Charges plus10% thereof, for each year.

Also, once the entitlement of DIAL to charging either Aeronautical Charges under Schedule 1 or charging Base Airport Charges plus 10% for an year has been decided, then the said entitlement remains fixed for all times to come and the same remains unaffected even if there is a change in the actual air traffic or PAX subsequently. As such, once the entitlement to applicable rates is fixed at the beginning of the year, then the revenue which would be earned from such rates is wholly irrelevant for the purpose of AERA in terms of its function under Section 13 of the AERA Act. Hence, there cannot be any true up based on the revenue earned by DIAL on the basis of the rates to which it was found entitled at the beginning of the year. That in view of the foregoing, it is stated that true up in subsequent control periods can only be done when some determination has been made on the basis of projections and the same requires to be trued up on account of availability of actual numbers at a later stage. However, there can be no true up as long as DIAL levies the Aeronautical Charges as per its entitlement determined at the beginning of the control period in terms of Clause 2 of Schedule 6 of the SSA.

That in contumacy of the principles elaborated hereinabove, AERA has in the Consultation Paper continued to apply its stance of levy of Base Airport Charges plus 10% thereof from 01.12.2018 and has disallowed the request of DIAL to levy Base Airport Charges plus 10% thereof from 01.01.2016. The levy of Base Airport Charges plus 10% thereof from 01.12.2018 has been proposed by AERA in the following terms:

> *" The tariff order was not implemented from January 1, 2016 till July 7, 2017 which is roughly three and quarter years of the Second Control Period during which the aeronautical charges levied by DIAL were much higher than the tariff applicable as per BAC plus 10%. However DIAL* ***has not only collected these high aeronautical charges but also claimed compensation to the tune of the revenues that would have accrued as per BAC*** *and has asked for the same to be trued up* ***additionally****. As per the SSA, BAC plus 10% is the floor revenue to protect the tariffs from falling below such Base Airport Charges and it is not an added revenue stream for true up when the actual aeronautical charges collected by DIAL are much higher than BAC plus 10%.*

*DIAL claiming the **BAC for the period from July 7, 2017 till December 1, 2018 along with the revenues collected as per the tariff order for the Second Control Period** also lacks merit as the BAC is a revenue floor and not an added revenue stream. DIAL **had continued to collect revenues as per the tariff order for the Second Control Period** in this intervening period. DIAL's eligibility has to be the difference between the revenues as per BAC plus 10% and the Aggregate Revenue Requirement (ARR) provided to the airport operator, provided such ARR that has been assessed for the relevant period is lower than the revenues collected as per Base Airport Charges. (Actual aeronautical revenues may not be considered for comparison with BAC for the lapsed control periods as the Authority considers only ARR on an NPV basis when the tariff is determined for the next cycle as part of true up exercise)."*

That for the period from 01.01.2016 till 07.07.2017, AERA has not applied its own principal, as stated above, that DIAL is entitled to BAC where the assessed ARR is less than the BAC charge. Accordingly such entitlement is regardless of the Aeronautical Charges which were being collected by DIAL during the above. The entitlement of DIAL for applicability of Base Airport Charges plus 10% thereof would be 01.01.2016, i.e., the date on which the Aeronautical Charges for the Second Control Period were determined under Schedule 1 of the SSA, because the Aeronautical Charges as calculated on 01.01.2016 under Schedule 1 of the SSA, were lower than the Base Airport Charges plus 10% thereof, and therefore the entitlement of DIAL for the Base Airport Charges plus 10% would arise from that day itself. DIAL cannot be penalized for the fact that the said comparison which was due to be done at the time of determination of Aeronautical Charges for the Second Control Period was done by AERA only vide its order dated 17.11.2018.

Further, for the period from 08.07.2017 to 01.12.2018, AERA has erred in the application of its own stated principal as much as instead of comparing the Aeronautical Charges as determined under Schedule 1 of the SSA with the Base Airport Charges plus 10% thereof for each year under the respective control period, as required to be done in terms of the mandate of the SSA, AERA has sought to compare the Aggregate Revenue Requirement or the actual revenue collected through levy of Aeronautical Charges determined under Schedule 1 of the SSA to the revenue that could have been collected by levy of Base Airport Charges plus 10% thereof for the relevant period depending on the traffic for the said period. However, the said methodology as adopted by the AERA is not only incongruent to the provisions of SSA, under which AERA has to undertake comparison between the Aeronautical Charges calculated under Schedule 1 of the SSA to the Base Airport Charges plus 10%, but also to AERA's own interpretation of the said Clause as stated in Para 4.3.6 of the Order dated 30/2018-19 wherein AERA has stated that the comparison is to be of the rates of Aeronautical Charges under Schedule 1 of the SSA and Base Airport Charges plus 10%, and not of the revenue therefrom. Further, since this determination and comparison is to be done at the beginning of the Control Period, there is no question of the applicability being decided by comparison of the actual revenue realised by DIAL for the relevant period.

It is also pertinent to see that if the proposal of AERA with respect to applicability of Base Airport Charges plus 10% thereof from 01.12.2018 were to take effect, then what would be the result of the same. According to the said proposal the entitlement of DIAL from 01.12.2018 onwards would be Base Airport Charges plus 10%, however, as a result of the foregoing, DIAL's entitlement from 01.01.2016 to 30.11.2018, would be only towards the Aeronautical Charges as calculated under Schedule 1 of the SSA and since the said charges are admittedly lesser than the Base Airport Charges plus 10%, the same would amount to a contravention of the assurance given by Clause 2 of Schedule 6 of the SSA. As such, even

though AERA has recognized the right of DIAL to, at the very least, be entitled to Base Airport Charges plus 10%, the said right shall get defeated by AERA's own proposal as made in the Consultation Paper for the Third Control Period.

Further, for the Third Control Period, AERA has proposed as under:

> *"…*
>
> *As per the terms of the SSA, the airport operator is eligible to charge Base Airport Charge plus 10% at the least and hence no reduction is possible with regards to aeronautical tariff beyond the Base Airport Charges plus 10%.*
>
> *Authority hence proposes to allow the airport operator to continue levying Base Airport Charges plus 10% during the Third Control Period. This is also in compliance with the TDSAT directions wherein AERA is required to respect rights/concessions etc. flowing from lawful agreements / directions viz. OMDA, SSA etc. The charges determined by the Authority pertaining to BAC plus 10% as per Tariff Order No 39/2018-19, currently levied by the Airport Operator can be seen in Annexure 7. These charges have been used to arrive at the projected aeronautical revenue as mentioned under Table 110.*
>
> *12.2.3 Based on the above calculation, the difference between the Present Value of Revenue projected based on the existing Base Airport Charges plus 10% and Present value of Target Revenue is a projected over recovery to the extent Rs. 1964 Cr (arrived on a PV basis as on April 1, 2019) for the Third Control Period and the same has to be recovered in the future control periods along with carrying cost."*

That while the proposal for levy of Base Airport Charges plus 10% thereof for the Third Control Period is in consonance with the provisions of the SSA, the proposal for true up of revenue which may be 'over recovered' by DIAL in the Third Control Period is without any contractual or legal basis. It is submitted that the proposal of AERA to true up the 'over recovered' Base Airport Charges plus 10% thereof is based on the erroneous premise that the total entitlement of DIAL for the Third Control Period is the Target Revenue calculated under Schedule 1 of the SSA and that any amount collected over and above the said amount, is excessive and would therefore have to be trued up in the successive control periods. However, the said assumption is in complete contravention of the provisions of the SSA, which simply state that the entitlement of DIAL is calculated in terms of the Aeronautical Charges and not in terms of the quantum of revenue to be collected as per the applicable Aeronautical Charges. Pertinently, the said proposal is also in contravention of AERA's own observation as made in Para 4.3.6 of Order No. 30/2018-19 wherein AERA has clearly stated that the comparison required to be done in terms of Clause 2 of Schedule 6 of the SSA is that of the rate of Aeronautical Charges to the Base Airport Charges plus 10% and not that of revenue therefrom.

As such, once the Aeronautical Charges determined under Schedule 1 of the SSA have been compared to the Base Airport Charges plus 10% thereof and it has been determined which one of the two is higher and shall therefore, be leviable, the question of the revenue which shall be collected on account of such levy becomes irrelevant. Therefore, once it is found that the Aeronautical Charges under Schedule 1 of the SSA are lower than the Base Airport Charges plus 10% thereof and that the latter would be applicable, then the entitlement of the relevant Control Period becomes the revenue collected by levy of the Base Airport

Charges plus 10% and the corresponding revenue becomes the entitlement of DIAL for said Control Period. As such, once the comparison has been made and it has been decided that the Base Airport Charges plus 10% thereof would be levied, the calculation under Schedule 1 of the SSA becomes irrelevant for the said control period and cannot be used as a yardstick to determine the revenue entitlement of DIAL for the control period. Hence, the two systems of arriving at the leviable Aeronautical Charges, i.e., the one under Schedule 1 and the other being the Base Airport Charges plus 10% thereof, are mutually exclusive and independent of each other. Therefore, the moment either one of the Aeronautical Charge systems are adopted, no reference can be made to the other system for any purpose whatsoever.

That in view of the foregoing, it is stated that once AERA has reached the conclusion that DIAL is entitled to levy Base Airport Charges plus 10% thereof for the Third Control Period, there is no question of reverting to the calculation under Schedule 1 of the SSA or to say that the entitlement of DIAL is limited to the Target Revenue calculated under Schedule 1 of the SSA. Once it has been proposed that DIAL shall be entitled to levy Base Airport Charges plus 10% thereof for the Third Control Period, the entitlement of DIAL qua revenue to be collected in the Third Control Period shall also stand amended in terms of the same. Also, as long as DIAL levies Aeronautical Charges as per the Base Airport Charges plus 10% thereof, no revenue collected therefrom can be said to be 'over recovered' or excessive in the hands of DIAL.

However, in the present case, the entitlement of DIAL to levy Base Airport Charges plus 10% thereof shall be decided at the very time of determination of Aeronautical Charges for the Third Control Period and therefore, whatever revenue is collected by DIAL by levy of Base Airport Charges plus 10% thereof shall form a part of the same entitlement. As such, there can be no true-up of the revenue collected by DIAL by levy of Base Airport Charges plus 10% thereof for the Third Control Period and the proposal of AERA in this regard is in derogation of the scheme of the Project Documents.

Further, in this regard DIAL has also sought expert view of ex-chairman AERA Mr. Yashwant Bhave. He has gone through the subject matter in detail and opined following:

- The tariff determination process provided in Schedule 1 and the other being the Base Airport Charges plus 10% are mutually exclusive and independent of each other. Therefore, the moment either one of the Aeronautical Charge systems are adopted, no reference can be made to the other system for any purpose whatsoever. Accordingly the Base Airport Charges plus 10% thereof entitled and proposed for the Third Control period cannot be trued up in the Fourth Control period as has been proposed by AERA. (para 4.2 of the opinion)
- Since the order for second control period was effective on 1st Jan'2016 the aggregate revenue (or the X factor) based on the enhanced airport charges (BAC + 10%) wherever applicable, will need to be calculated from the effective date till the end of the control period i.e. 31-3-2019. (para 4.3 of the opinion)
- The target revenue for true up purpose for second control period should be over and above the Base Airport Charges (para 4.5 of the opinion)

The opinion of the erstwhile regulatory expert is in consonance with the view of DIAL for the treatment of BAC+10%. The expert opinion has been attached herewith as **Annexure –6** for your ready reference.

Accordingly it is our humble request that Authority for the purpose of true up consider only the target revenue over and above the revenue earned basis Base Airport Charge+10% for the period effective from 1st Jan'2016 – 30th Nov'2018. Also, there should be no true up of the revenue allowed by AERA on the basis of BAC+10% for third control period.

4 Tariff determination for third control period

4.1 Regulatory asset base

4.1.1 Phase 3A project cost

Authority had appointed independent consultant KITCO to review the project cost estimate submitted by DIAL. As per DIAL estimates the project cost was expected to be Rs 8632 Cr however as per KITCO estimate the project cost estimated to be Rs 7969 Cr. The observation of DIAL is attached herewith as **Annexure-7**.

The original estimates submitted to AERA/KITCO were based on preliminary BoQ and estimated per unit cost. The contract for Phase 3A expansion work was awarded on lump sum price and on EPC (Engineering, Procurement and Construction) contract basis post international competitive bidding. The successful EPC bidder i.e. L&T had estimated package wise payment mechanism for the decided lump sum cost.

Accordingly, we hereby submit that the project cost now arrived is a result of price discovery done through international tendering process:

- DIAL has followed an exhaustive and transparent International tendering process wherein reputed International Contractors with experience in similar projects had been shortlisted for tendering.
- The exhaustive process of tendering, evaluation, discussion and negotiations followed by DIAL has resulted in the discovery of the reduced than initially tendered EPC cost for the Phase 3A works. The final prices were arrived after rigorous negotiations with the lowest bidder i.e. L&T which had almost 6% lower quoted price than the highest bidder initially.
- The final prices provided by the L2 bidder is around 2.3% higher than the lowest bidder and that provided by the L3 bidder is around 11.3% higher than the lowest bidder. This provides further confirmation that the final award price is reasonable and right price.
- It is an established rule of law that once the price is discovered through competitive bidding process it is sacrosanct and cannot be tampered with.

In view of the above we request the Authority that though we have submitted our observations against the recommendations of KITCO for the reasons stated above, however AERA must consider only the project cost arrived based on the international competitive bidding and not to consider any reduction in the cost so arrived.

Penalty

Authority noting the quantum of the capex and its associated impact on the tariff to be levied on the passengers proposes that a penalty of 1% on the Phase 3A Project Cost shall be levied at the time of true

up for the Fourth Control Period if the proposed Phase 3 A Project has not been completed and made available for the passengers before March 31, 2023. The penalty amount (if applicable) shall be deducted from the RAB at the time of tariff determination for the Fourth Control Period.

DIAL's response

Authority in its consultation paper introduced a new concept of penalty on delay in execution of the proposed expansion plan of Phase 3A, which is not envisage anywhere in the concession agreement or AERA Act'2008. In this regard we would like to submit that it is in the interest of DIAL to complete the project within timelines and meet the customer satisfaction level. Though DIAL will endeavor to complete the project within the timeline provided by the Authority, however there can be few extraneous factor which are not in control of DIAL. These circumstances coupled with the COVID related uncertainties cannot be gauged at this time of the project and the challenges that may come in the future are also unpredictable.

It may also be perused that the DIAL already works at very thin margin in a regulated environment and any further drag in its profitability will lead to unviability of the project. Any new charges/penalty which were not envisage at the time of initial biddings of the airports, concession agreement or it's own guidelines. In accordance with the SSA DIAL in its right to consider the investment made by DIAL in RAB for tariff determination and there is no such exclusion in the name of penalty from RAB. Following is the extract of the RB definition provided under SSA:

> *RB = regulatory base pertaining to Aeronautical Assets and any investments made for the performance of Reserved Activities etc. which are owned by the NC, 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.*

Given the situation of uncertainty and unforeseen circumstances, we request authority to not consider 1% penalty in case the phase 3a project is not completed till 31st March'2023.

4.1.2 Financing allowance

Authority's observation regarding financing allowance

Authority in the past has only considered Interest During Construction (IDC) as part of the aeronautical RAB in the case of airport operators whose tariff determination methodology is prescribed as per the SSA. The SSA defines the RAB as below;

"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 capitalized in fixed assets."

As per the SSA, DIAL should be given a return to the extent of efficient capital expenditure that has been capitalized. The Financing Allowance as per the understanding is a notional allowance and is different

from the actual investment incurred by DIAL which could include only the Interest during Construction amongst other costs. Authority hence proposes that only the IDC that gets capitalized is considered as part of RAB.

DIAL's response

The Authority in it's proposal has not considered the applicability of financing allowance to DIAL on the basis that it is a notional allowance. It is submitted that the Financing allowance consist of return on both debt and equity portion during the time of construction period. Authority agree and allows return on debt as IDC then in similar way Authority should also consider that the equity/internal accrual deployed in the project is also eligible for return. The equity/internal accrual also have carrying cost which need to be reimbursed. It may be perused that the Authority vide the Airport Guidelines i.e. Terms and Conditions for Determination of Tariff for Airport Operators Guidelines, 2011 dated 28th Feb'2011 at Para 5.2.7 considers financing allowance on CWIP which is reproduced below:

> *The Financing Allowance shall be calculated as follows*
>
> *Financing Allowance = Rd X (WIPA $_{t-1}$ + (Capex-SC-CA) / 2)*
>
> *Where Rd -is the cost of debt determined by the Authority accordingly to clause 5.1.4*
>
> *SC are capital receipts of the nature of contribution from stakeholders (including capital grants and subsidies) pertaining to the capital expenditure incurred in Tariff year t.*
>
> *CA are Commissioned Assets which pertain to the accumulated value of the WIPA attributable to all assets that have been put into effective operation during Tariff Year t.*

The SSA does not have a specific provision to the consideration of IDC or the Financing allowance. While it can be seen that the Authority has considered Financing allowance as a guiding principle for all other airports.

Authority in its order no case of tariff determination for second control period for Bangalore Airport vide order no 18/2018-19 dtd. 31st Aug'2018 following is the relevant extract:

> *9.2.22 The Authority noted that BIAL had considered Financing allowance for addition to RAB as provided in Direction 5 – Airport Guidelines, against Interest cost during construction which will be capitalized as cost of the assets. The Authority also understood that these estimates would vary considering the Debt/Equity mix in the funding for Airport Project, where the Projections made by BIAL considered substantial funding of the Project by Equity (which was estimated to be available considering BIAL's estimate of ARR for the second control period). (In doing the calculations in the Business Model submitted, the Authority has considered gearing of upto 75% and 70% respectively instead of lower gearing as considered by BIAL).*

In case of Hyderabad Airport vide order no 34/2019-20 dtd. 27th March'2020 authority had allowed financing allowance. Following is the relevant extract (para 5.75) of the order:

> *Also, the Authority noted HIAL's submission to fund the expansion projects through debt and internal accruals in the ratio of 60:40. However, based on the Authority's Guidelines. The financing allowance has been computed for the entire project cost.*

In view of the above provisions of the guidelines and similar application to the other airports, DIAL requests the Authority to consider the financing allowance.

4.1.3 Calculation of IDC

Without prejudice to our stand of financing allowance we would like to submit following on Authority's calculation of IDC.

Authority at para 4.2.15 has considered following funding flow for the capex:

> *Authority has hence proceeded to calculate the IDC that would be incurred by DIAL based on prudent means of financing the capex, wherein the internal accruals accumulated and the RSD raised shall be first utilized to fund the capex post which debt instruments shall be drawn. Amongst the debt instruments, the Bond Instrument already raised by DIAL shall be utilized before additional RTL drawdown.*

In accordance with the OMDA DIAL had to initiate phase 3a expansion plans. In this regard DIAL had obtained in principle approval from AERA on 29th June'2018. Accordingly, DIAL had initiated its effort to raise debt to fund the said capex. DIAL had successfully raised USD bond of 350 Mn in June'2019. The bond had been raised exclusively for funding phase 3a expansion. Also as per the new ECB framework issued by RBI on 16th Jan'2019 such proceeds can be parked maximum for 12 month in term deposit. In other words the ECB should be utilized within 12 months for efficient cash management.

Authority in the consultation paper proposed that the internal accrual and RSD raised should be first utilized to fund the capex. However, in the given circumstances since the exclusive funding for phase 3a expansion already been done and same has restrictive usage and time it is prudent to use bond proceeds first to fund the capex. DIAL has followed the same approach.

Accordingly, we request authority to consider the capex funding on actual basis and allow IDC based on actual.

4.1.4 Depreciation on the expansion assets

The Authority is of the view that the capex expansion is primarily towards expansion of terminal and construction of runways/taxiways and aprons. Authority has considered depreciation for expansion assets by considering a weighted average of the depreciation rates for building and plant & machinery at a proportion of 65:35 respectively.

The weighted average depreciation rate determined by the Authority for the expansion assets works out to 4.51% which shall be trued up based on actual asset additions and depreciation.

DIAL's response

Authority has considered the expansion asset into 65:35 building and plant & machinery to arrive at 4.51% of effective depreciation rate. Since as of today there is no clear bifurcation of asset available in expansion plan accordingly any apportionment of asset will be theoretical only. DIAL in its submission considered

the effective depreciation rate as per DIAL books of account for FY'19 which is the closest relatable basis available as of today.

In any case the depreciation is subject to true up in next control period. The reduction in percentage will lead to tariff reduction and have adverse impact on DIAL cash flows.

Accordingly, we request authority to consider the effective rate of depreciation for FY'19.

4.2 Cost of debt

Authority at para 5.3.4 of the consultation paper has proposed to cap the cost of debt. Following is the extract of Authority's proposal:

> *Authority proposes to consider cost of debt as 9.99% based on its assessment of the cost of Rupee Term Loan and the effective cost of the bonds already raised by DIAL, which shall be trued up subject to a ceiling of 50 bps.*

In this regard we would like to submit that in the current pandemic situation the overall financial market is very volatile. The Airport business is the worst affected due to this pandemic and this will have bearing on its cash flow. The cost of debt may not be consistent as it was in the past and may vary due to the reason beyond our control. It is our endeavor to manage the cost of debt at the lowest possible however we request Authority to consider the cost of debt at actual while truing up CP3.

Further, in order to reduce the stress of debt on the Company we are exploring avenues to fund movable assets through lease financing.

DIAL request the Authority to consider the same while true up in fourth control period.

4.3 Determination of WACC

Cost of Equity:

TDSAT in its order in the matter of CP1 tariff appeal for DIAL stated following on return on equity:

> *Although rate of 16% as return on Equity not interfered with, AERA may redo the exercise through a scientific and objective approach, independently of any observations in the Third Control Period.*

In accordance with the said order Authority appointed IIM Bangalore to study the reasonable return on equity to be made available to the airport operator.

Authority had in accordance with study conducted by IIM allowed 15.41% return on equity. Authority had shared a copy of the IIM B study. In order to estimate reasonable cost of equity should be available to the airport operator DIAL had also appointed CRISIL for an independent study. CRISIL had submitted their report in Dec'18. A copy of the report provided by CRISIL is attached herewith as **Annexure –8**. We have following point wise comment on the study conducted by IIM B:

Risk Free Rate:

IIM B has considered risk free rate (Rf) of 7.56% whereas the Rf considered by CRISIL is 7.74%. CRISIL in order to arrive Rf has considered 10-Year GOI bonds monthly averaged over 10 years whereas IIM considered 10-Year GOI bonds daily averaged over 18 years.

In a typical calculation of CAPM methodology the period used is of 10 years. Worldwide other regulator and industry also uses 10 years for calculation of risk free rate:

Country/sector	Regulator	Term for risk free rate
UK	The UK civil aviation authority	10
Australia	All jurisdictional regulators	10
New Zealand	Civil Aviation Authority	Review period – 5 years
India – Ports	TAMP	10
India-Power	CERC	8

Also, the interest rates in any economy is highly impacted due to recession, economic downturn and timing of recovery. Accordingly while considering the period of interest rate one should consider the full economic cycle i.e. recession to recovery. India has witnessed two economic crisis one in 1991 and another in 2008. The correct approach is to consider period either starting from FY'09 to FY'19 or in case of long term then it should be FY'09 to FY'19 which will include both economic cycle in full. IIM-B considered interest rate from 2001 which was the time when the interest rates were fairly low and hence the Rf arrived by IIM-B does not reflect true risk free rate.

Accordingly, we would like to submit that Authority should consider the period of full economic cycle and considering the industry practice the Authority should consider the period of FY'09 to FY'19 to calculate risk free rate.

Asset Beta from Comparable Airports:

IIM B in its study considered 12 international airports. Out of total 12 airports only two airports belongs to developing countries. Airports in developing markets are exposed to each of these risks differently when compared to developed markets. CRISIL in its report mentioned following risks which the airport airports in developing market have to witness:

Demand Risk – Apart from the economic conditions which affect demand, demand for air travel is also highly elastic with respect to air fare in India and other developing economies. Any increase or decrease in air fare due to fuel prices or other input costs results in relatively higher traffic volatility.

Counterparty Risk – Airports in developing countries typically derive a major part of their revenue from aeronautical services, as against the developed markers where non-aeronautical revenue is higher.

Regulatory Risk – Regulations in developing countries are still evolving and are not stable.

Asset beta of airports in developing countries is consistently higher than the asset beta of airports in developed economies. This can be demonstrated by the data provided by IIM B also, at table 3.1 of the study the asset beta for Sydney airport is 0.40 whereas the asset beta for AoT is 0.86. This shows the quantum of variation in risk perception between developed and developing countries.

We would also like to highlight the business risk associated with airports undergoing major expansion. All airports considered in IIM B report are matured in terms of expansion phase. This is very relevant for determining risk level of DIAL's business as it is undergoing major expansion projects

IIM B determined the equally weighted average asset beta and then applied a proximity score to arrive at airport specific beta. In this regard we would like to submit that the airport for comparison itself should be considered the airport which are most similar. When there are already similar airport are available to compare then there is no need to further apply a factor which is arrived on theoretical basis.

CRISIL in its report considered beta from both developed and developing countries. CRISIL had considered 11 airports from developed countries and 11 airports from developing countries for determining asset beta. The average asset beta of developing countries comes to 0.64 and for developed countries it is 0.57. Since the risk of Delhi Airport can be compared to similar economies and similarly placed airports, CRISIL suggested to consider Beta for developing country for DIAL i.e. 0.64.

Further, we would like to draw Authority's attention on the calculation of Beta. In the formula of Beta calculation consider reduction of tax because it is assumed that interest paid on debt will be allowed as deduction as per respective countries Income tax Acts and thereby Income tax paid/payable will come down to that extent. Therefore, the benefit of tax should be factored while calculating the beta of Equity.

The above conventional approach is considered by IIM in the study report and has also relied upon the publications/articles published by various reputed Professors/Firms including Mr. Damodaran.

However, an article published by Mr Damodaran has clearly mentioned that when Debt creates a tax benefit and is reflected as asset on asset side of Balance sheet only then the (1-Tc) is to be considered. Refer sl.no 5 of below mentioned link.

The same can be represented as follows:

Liabilities	Value	Assets	Value
Equity (Levered Beta)	Balancing figure	Business/Assets (Asset Beta/ Unlevered Beta)	XX
Debt	XX	Tax Benefit of Debt	XX

Source: http://people.stern.nyu.edu/adamodar/New_Home_Page/AppldCF/derivn/ch4deriv.html

Further, and another article published by Mr Damodaran has mentioned that in conventional approach in some versions, the tax effect is ignored and there is no (1-t) in the equation. Refer page 84 of below link.

Source: http://stern.nyu.edu/~adamodar/podcasts/valspr15/valsession6.pdf

From the above it can be clearly understood that the intention or the purpose of calculating the Levered Beta is to adjust the Asset Beta with the financial leverage of the Company i.e., the portion of the Debt (that bear no market risk) and resultant tax benefit from the Debt instruments.

In the given scenario for DIAL, the Independent Study considered the Marginal Tax @ 30% and factored the same for arriving at the Equity Beta. In case there is no aeronautical tax liability arises to DIAL during

the third control period as part of tariff determination by Authority and thereby there is no tax benefit being accrued to the DIAL by virtue of Debt.

Accordingly, it will be unfair to factor the tax benefit which is not accrued to DIAL and compute Beta of Equity, therefore Beta of Equity should be considered excluding tax benefit due to Debt.

Equity risk premium

IIM B has considered simple average of ERP determined by four studies. It considered the study done by Anshuman (2019) an estimate of 7.78%, estimation done by Damodran's estimation for India based on CDS is 7.87%, a report by Grant Thorton considering ERP as 8% and Damodaran's 2019 based on bond rating is 8.6%, the authority took the average of these four to arrive at the value of 8.06% ERP.

The market return can be calculated based on available indices from the Indian stock exchange data which are available for a fairly long period to establish the movements. The reliability of the data depend on the time horizon of the data, the data for longer time horizon is more reliable as it will be bereft of short term volatilities and provide stable market return. CRISIL used BSE being the oldest and having high liquidity considered as a proxy for market return. The geometric mean was considered from 1998 and the dividend yield calculated by the average annual dividend yield provided by the BSE Sensex. BSE sensex may be a good representative of the market return in the Indian context.

CRISIL concluded to use the geometric mean which resulted into market returns at 17.06% comprising of 15.57% and 1.49% corresponding to dividend yield.

Further, without prejudice to above, It is submitted that IIM B report ought to have considered the latest Damodaran's estimation for of ERP 8.46% for India based on CDS instead of 7.87% and accordingly re-calculated cost of equity. We request that Authority to consider ERP of 8.6% as per Damodaran based on bond ratings as Rf is also considered based on bonds rather than CDS.

Further, the Authority has proposed to consider 15.41% as cost of equity-based on IIM B report. The IIM B report has considered infrastructure comparable companies i.e., Real Estate and EPC (Refer Table 3.7 of IIM B report) for the purpose of determination of cost of debt. However, the Authority's proposal of 15.41% is also lower than the sector cost of equity for Indian infrastructure companies i.e., EPC (16.8%) and Real Estate (17.8%) as mentioned in *Fig 3.3: CoE by Sector* in the IIM B report

Impact of COVID-19 on Beta and ERP:

In the wake of the Coronavirus outbreak, lockdown of cities, border closures and many other health measures have already been implemented across the globe, which should eventually slow and stop the pandemic. However, these policies will also lead to economic depressions around the world, and quickly spreading to financial markets.

The US' policies may introduce further uncertainty into the global markets and create trouble for emerging economies. For example, the US Quantitative Easing after the 2008 global financial crisis contributed significantly to the increased systemic risk at the time.

The great uncertainty of the pandemic and its associated economic losses has caused markets to become highly volatile and unpredictable. Pandemic-induced demand shocks which will translate into lower current and expected earnings, which induce a negative shock to the market value of the firm's assets.

NCBI data for top 10 countries by confirmed cases as on March shows the risk levels of all the countries has increased substantially, from an average of 0.0071 in February to 0.0196 in March. (Standard deviation of market returns).

One measure of an equity risk premium is regularly provided by Duff & Phelps. On March 25, 2020, Duff & Phelps increased its US ERP estimate from 5% to 6%, an increase of 20%. The rise in the Duff & Phelps ERP reflects some of the additional economic and financial risks of COVID-19 to investors. This will be further reviewed periodically and much higher escalations are envisaged.

Many established agencies are suggesting a significant increase in the values of Asset Beta and ERP in the post covid era. Deloitte, valuation firms like Valuesque have reported about 2% absolute value increase in ERP for European markets. Higher volatilities can be expected in emerging markets.

We understand that there has not been any established values for Indian market yet due to extremely volatile situation. In light of the same, our proposal to the authority is provide a suitable premium on these values for CP3 in the order for calculation of cost of equity.

We request Authority's consideration towards various aspect mentioned above on the calculation of Return on Equity for DIAL to consider the ERP methodology provided by CRISIL as it is more relevant in Indian context and also re-establish the values of Asset Beta and ERP incorporating the COVID impact as highlighted above.

4.4 Operating expense for third control period

Authority while allowing operating expense for third control period has in principal considered expense growth in line with past 5 year CAGR. In this regard we would like to submit that the expense forecast should be forward looking, in past five year there was no expansion done at Delhi Airport, the asset was not depleted to that extent as they are today, economic and global environment are not similar to what they are today, increase in minimum wages led to significant increase in the cost. Following is our head wise response on operating expenditure:

Manpower cost:

The Authority in it's approval of the the manpower cost for the third control period has only considered the five year CAGR for expense growth i.e. 9%. The CAGR would reflect the past trends of growth in a similar condition. DIAL in the past has seen serious iteration in the employee strength. DIAL restraint due to the cash position in the past years has been unable to replace the staff and the salary increase has been less than the market standards. The Authority is well aware of the expansion plan where DIAL is increasing the terminal space by almost 20% from existing 669068 sqm to 797913 sqm, additional increase in airside space by 21.52 lakh sqm and the increase in capacity from 66 mppa terminal to 84 mppa terminal (a 27% increase).

The increase in manpower considered by the Authority which is considered at past five year average does not commensurate with the expansion plans of DIAL and may lead to cash flow issues for DIAL.

Accordingly, we request the Authority to consider the real increase of 10% and increase in manpower on expansion at 5% in the year of airside expansion and 27% in the year of completion of terminal expansion.

We request Authority to allow one time growth due to expansion.

Administrative and General Expense

a) Authority in case of professional and consultancy has restricted cost to the average of last five years for full control period. Authority pegged professional & consultancy at Rs 55 Cr which is even lower than Rs 57 Cr incurred in FY'19. Since, DIAL increasing its capacity accordingly there will need of more advise from industry experts, innovation etc on airport operation and related area, financial consultant, legal advisors etc. Hence, we request authority to consider at the least inflationary increase and increase on account of expansion.
b) There is in built contract mechanism of annual increase in rentals, however authority has considered the rental to be same for every year for next five years. The annual increase in rental generally in the range of 10%-15% however we request authority to consider at least inflationary increase annually.
c) Authority has reduced bank charges by 18% on the test of efficiency. In this regard we would like submit that these charges are already incurred based on the agreed contractual arrangement with lenders. These charges being amortized over the bond period. Hence same should be allowed as per our submission.

Authority has disallowed CSR, however in accordance with our explanation at para 3.3.2 above we request Authority to consider CSR expense in tariff determination.

Operating expense

Authority has considered last five year CAGR while allowing operating expense.

In this regard we would like to submit that operating expense is directly link with operational area. Since there is significant increase in both terminal area as well as airside capacity there will be additional cost on account of expansion. The overall terminal area at IGI Airport including T1, T2 and T3 is 669068 sqm which with the expansion of Terminal 1 will increase by 128845 sqm. This translates in to increase of 19.26% in area. Accordingly there will be corresponding increase in upkeep, repair and maintenance of this.

Further, the existing assets of DIAL are more than 10 years old and due for major maintenance. Increase in minimum wages also resulted into significant increase in cost which will lead to overall increase in operating cost.

The disallowance of the cost by the Authority will lead to day to day cash flow issues for DIAL and it may even face challenges to manage routing upkeep and maintenance of the Airport. This will ultimately impact the service levels.

Accordingly, we request authority to consider expansion factor while allowing operating expenditure.

4.5 Revenue from revenue share assets

The revenue from revenue share asset will be highly impacted due to COVID scenario. A detailed explanation of COVID-19 impact on revenue from revenue share assets has been provided at section 1 above.

Further, at para 7.2.13 regarding other income has sought stakeholder view on dividend income:

> *Authority is also of the view that some portion of Other Income including dividends is also fit enough to be classified as aeronautical revenues and has proposed stakeholder views on the same.*

We have following submission in this regard:

The investment in the subsidiaries was made by DIAL and the same is not considered as regulatory asset base for the purpose of tariff calculation. Since the investment is outside tariff determination purpose any return from such investment as equity shareholder should also be outside regulation.

At para 6.45.1 of the order no 40/2015-16, authority opined following:

> *…Also the Authority noted that DIAL had realized dividend income from its investments in JVs. However as the assets pertaining to the JVs were not being reckoned for the purpose of determination of RAB, the Authority is of the view that the dividend income accruing to DIAL from such JVs should also not be considered towards cross-subsidisation.*

Accordingly, Authority decided on other income as follows in order no 40/2015-16 for first control period:

> *6.53.13. To consider revenue realized by DIAL under the head "Other Income" (excluding income from interest, dividend and forex gain/loss) during the first Control Period towards cross-subsidisation under the current exercise.*

Further with respect to CP2 Authority has opined following at para 19.37 of order 40/2015-16:

> *The Authority has noted FIA's comment with respect to Other Income. However, the Authority has decided to consider revenue realized by DIAL under this head (excluding income from dividend only) as non-aeronautical.*

The Authority deviated from its own decision taken earlier. It is a clear departure from settled principle. DIAL at the time on investment has undertaken business risk and in order to promote the airport non-aero revenue invested in various ventures. The investment in these ventures has not been considered as part of RAB from regulatory parlance and hence no return been allowed by AERA on such investment. The dividend is only way where DIAL can recoup its investment and fund its carrying cost. In case Authority consider some part of it as cross subsidy then DIAL will never be able to recoup its investment which will be not only against the regulatory principle but also against the financial principles.

Accordingly, we request Authority not to depart from the settled principle. Hence, dividend should not be considered as part of the revenue from revenue share assets.

4.6 Tax

In accordance with para 3.4.3 above we request authority to consider the S-Factor while calculating aeronautical tax. This treatment will in consonance with the understanding laid out in the concession agreement as well as tariff guidelines.

4.7 Fuel throughput charge compensation

Authority on 15th Jan'2020 as a follow on to the MoCA letter dtd. 8th Jan'2020 had abolished the Fuel throughput charge at Indian Airports however the Authority simultaneously proposed to compensate the airport operator in lieu of fuel through put charges.

DIAL in pursuant to Authority's direction has stopped collecting fuel throughput charges w.e.f. 15th Jan'2020. Authority in its consultation paper 15/2020-21 has proposed a compensatory tariff for the third control period. However, since the third control period is currently at consultation stage there was no compensatory tariff for the period starting from 15th Jan'2020 to 31st March'2020 hence the revenue lost on this account needs to be compensated. Accordingly, we request AERA to increase the effective rate of compensatory tariff for the balance period of FY'21 to the extent of loss of revenue of account of fuel throughput charge for the period starting 15th Jan'2020 to the effective date of third control period order.

Following are the details of revenue foregone on account of fuel throughput charges for the period 15th Jan'2020 to 31st March'2020:

Period	**Total Throughput**	**FTC rate in BAC**	**FTC revenue foregone (In Rs/Cr)**
Month			
Jan'20 -(15th -31st)	128394	500	6.42
Feb'20	221267	500	11.06
Mar'20	149347	500	7.47
Total	**499008**		**24.95**

The revenue shortfall starting 1st April'2020 to the effective date of third control period can be provided once the authority decides the effective date of the third control period order.

***

Aviation

COVID-19 air passenger recovery phases and forecast

icf.com

The COVID-19 pandemic has brought global air passenger traffic to a halt, with government support propping up the few remaining flights. Even for those in the industry who have successfully navigated through prior crises, the current situation is unprecedented in reach, duration, and severity. Most concerning for business managers are the uncertainty and lack of reliable indicators to help plan their organization's recovery. With this report, our aim is to help managers understand how the pandemic may unfold based on what we are now seeing, how air traffic could recover, and—most importantly—what concrete steps they can take to prepare their organization for the recovery.

Recovery phases

The first question is when will a recovery start? For a full traffic recovery to take hold, we must progress from the current "quarantine phase" to a "full recovery phase" (Exhibit 1). As of this writing, many countries are planning to ease quarantine restrictions to allow their economies to restart, at which point they will enter a "pre-recovery phase" that will last until there is either a treatment or cure for COVID-19. This phase will start at different times in different countries, depending on the country's ability to flatten the curve of infections, which is why border re-openings will be gradual.

Air travel will slowly return during the "pre-recovery phase," and it is this phase that organizations need to prepare for now. The shorter this phase lasts, the faster we expect air traffic to recover. While medical experts indicate a vaccine could be a year or more away, as of this writing, there are encouraging signs that an effective treatment may be available before the end of the year.

Exhibit 1: COVID-19 traffic recovery phases

The timing and shape of recovery depends on our ability to control or mitigate the pandemic.

Quarantine Phase *2-3 months?*

Current phase

- Essential passenger flights
- Repatriation flights
- Cargo flights

Pre-Recovery Phase *6-18 months?*

The longer this phase lasts, the slower the recovery

- Domestic resumes first
- Gradual border opening limits international recovery
- "Social distancing" fully in place at airports and onboard flights
- Only the brave will fly
- Need to convince customers that traveling is safe again
- Key risk factor is a "second wave" of infections

Recovery Phase *Several years*

- Full border opening
- "Social distancing" goes away, with new sanitary practices in place
- Passenger behavioral change affects business and leisure
- Recovery depends on:
  - a) depth of economic recession
  - b) health of remaining airlines

Recovery forecast

There is much discussion about what the air traffic recovery from COVID-19 will look like, and whether it will be shaped like a "V", "U", "L", or some other shape. However, this discussion does not help managers make informed decisions about their business. What organizations should be most concerned with is what the next 12 to 24 months could look like for their business. To this end, ICF has prepared a COVID-19 traffic recovery forecast that quantifies the impact on traffic (by world region) over the coming years relative to pre-crisis levels.

As experienced forecasters, we are aware of the challenges in developing a reliable forecast at a time when key questions influencing supply and demand cannot be answered. For starters, we are not concerned with precise traffic numbers but rather want to give managers an **order of magnitude** for what the near-term traffic shortfall will be. This order of magnitude is more meaningful than knowing whether the recovery will be shaped like a "V" or a "U." Our forecast is informed by a broad range of inputs from respected third parties and our own analyses, and it assumes that the pandemic ends by early 2021 (Exhibit 2).

Exhibit 2: Forecast inputs, assumptions, and modeling approach

	Pre-recovery (2020-2021)	Recovery (from 2022)
Inputs	■ Equity research reports from major investment banks for airlines, airports, lessors, and OEMs ■ Airline news on fleet, staffing, restructuring, etc. ■ Government bailout announcements ■ Segment passengers from IATA PaxIS (2019 baseline)	■ IMF COVID-19 updated GDP forecast by country or world region
Assumptions	■ Cure or treatment is available in 1Q 2021 ■ Load factors are well below pre-crisis levels until there is a treatment or cure (however, load factors recover quickly thereafter, in line with past crises)	■ Historical relationship between GDP and passenger growth (i.e., income elasticity of demand) remains unchanged
Approach	■ **Bottom-up** ■ Rely on equity reports and industry news ■ Driven by capacity and load factor assumptions	■ **Top-down** ■ Rely on the GDP and income elasticity assumptions ■ Recovery profiles sense-checked against prior recoveries for reasonableness

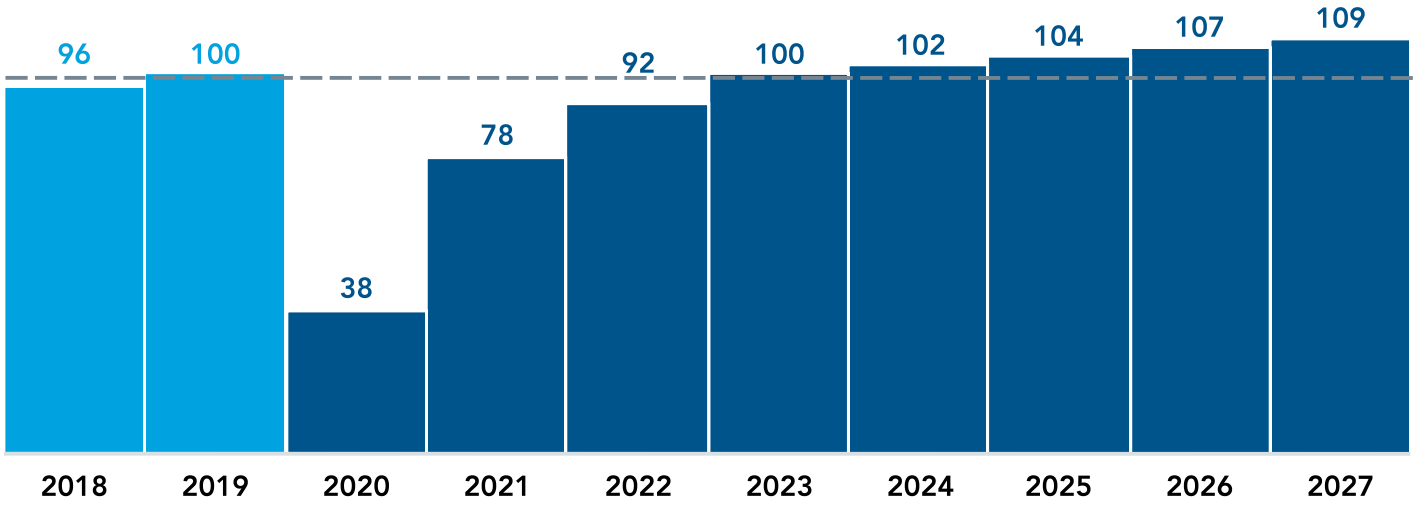
Given these considerations, we are forecasting global passenger demand to recover in about four years, with the recovery led by domestic and regional markets, and long-haul traffic lagging a year or two behind (Exhibit 3). However, **our industry's biggest challenge will be overcoming an unprecedented demand drop in 2020 and 2021.**

Industry stakeholders' business models—be they airlines, airports, or suppliers—have large fixed and semi-fixed cost structures that are not designed to withstand a drop in demand of this magnitude. Companies will need to take significant steps to "right-size" their business to make it through the "pre-recovery phase" and be well-positioned for the ensuing recovery.

Exhibit 3: Global passenger forecast (Indexed, 2019 = 100)*

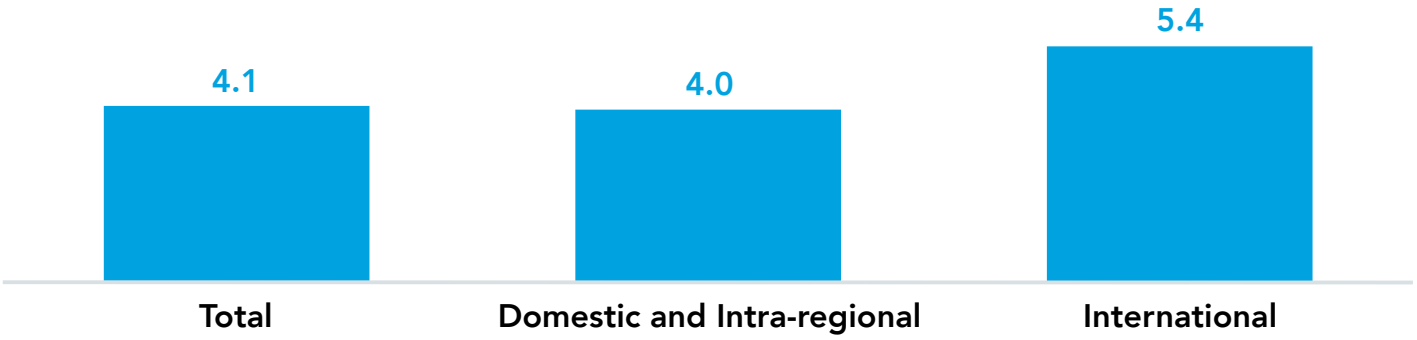
**This forecast assumes that a cure or treatment is available in Q1 2021*

Source: ICF analysis



Years to recover pre COVID-19 traffic

Source: ICF analysis

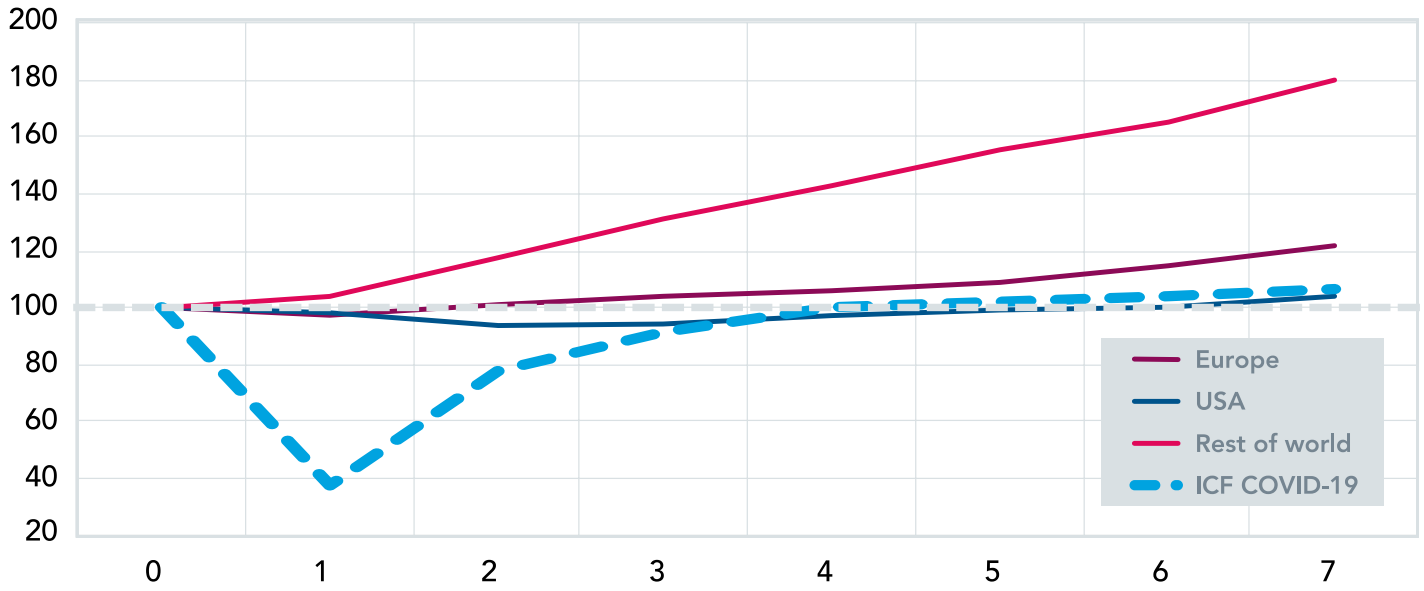


To put 2020 and 2021 in perspective, we have compared our recovery forecast to what happened after the Great Recession of 2008 (Exhibit 4). We do not show the impacts of past pandemics since they pale in comparison to COVID-19 and do not provide any useful insights. The United States required over six years to return to pre-recession levels, while Europe recovered within a year and the rest of the world kept growing.

Exhibit 4: Recovery from Great Recession (2008/2009) vs. COVID-19 (Air Passengers, indexed: pre-crisis = 100)

Source: ICF analysis using IATA PaxIS

Aviation has shown resilience in past crises, but this crisis is very different.



Aviation's resilience in past crises is a testament to its critical role in the global economy. The COVID-19 crisis is very different from the Great Recession for various reasons, and these will undoubtedly make for a more challenging recovery:

- **Severe global impact.** Aviation activity has shut down on a global level.
- **Economic recession.** The economic impact is expected to be much greater than in 2008, with the IMF expecting global GDP to contract 3% in 2020.
- **No China this time.** Global air traffic's resilience in 2008 was thanks to China's strong growth engine, which accounted for significant traffic growth on its own, supported commodity exports in emerging markets, and afforded an abundance of cheap credit in advanced economies.

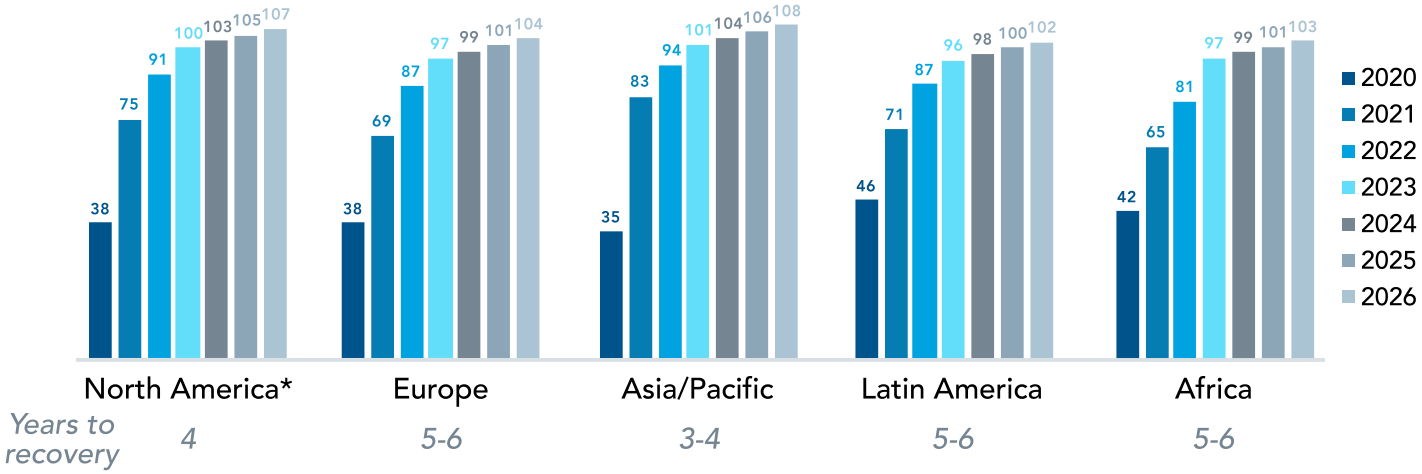
- **Supply-side constraints.** The unprecedented demand drop in 2019 and 2020 is causing aircraft order cancellations and retirements unlike anything in past recessions, and is already forcing airlines into bankruptcy or liquidation, resulting in less excess capacity during the recovery.
- **Behavioral change.** Past recessions have led to a loss in business-related traffic. The 2001 recession led to a loss of short-haul business traffic in the United States, and the 2008 recession led to a down-gauge of business travel from premium to economy classes. Will 2020 be remembered as the year video-conferencing finally took off, permanently displacing some business travel?

No region is immune to the current fall-off in demand and all can expect a challenging 2021. We do, however, anticipate different recovery speeds beyond 2021 as we move into a "full recovery phase," with Asia-Pacific reaching pre-crisis traffic soonest, while Latin America and Africa are forecast to recover last (Exhibit 5).

Exhibit 5: Global passenger forecast by world region (Indexed: 2019 = 100)

Source: ICF analysis

Recovery timing will vary by region, with North America and Asia/Pacific expected to recover first



*North America excludes Mexico

Traffic recovery rates by region are driven by GDP forecasts and income elasticities, but are influenced by other explanatory drivers such as the mix of domestic and regional versus long-haul traffic, the financial health of each region's airlines coming into the crisis, and the availability of substitutes. (Exhibit 6).

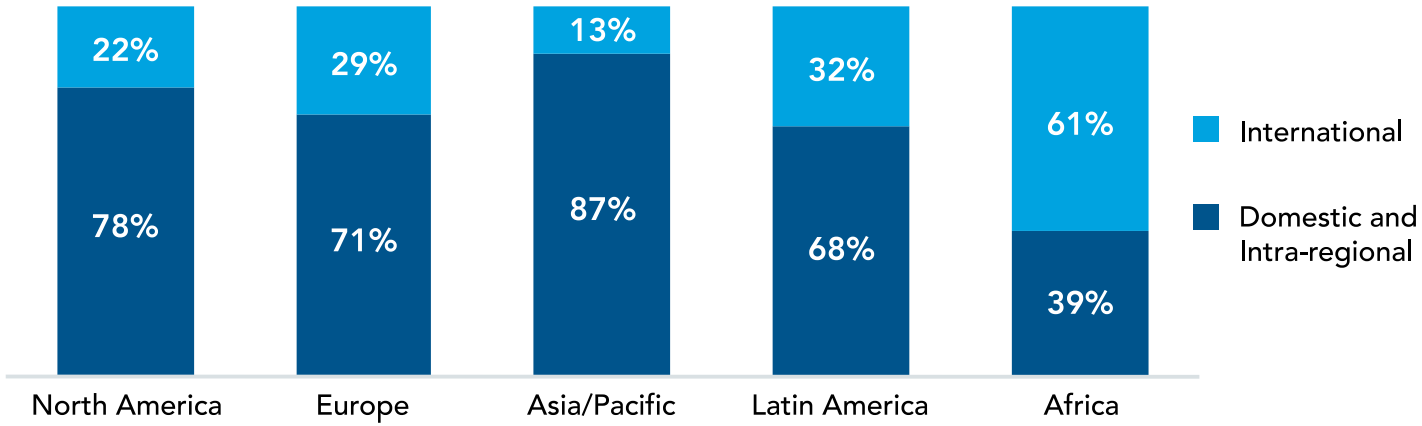
Exhibit 6: Explanatory drivers by region

North America	Europe	Asia/Pacific	Latin America	Africa
✓ Airlines in good financial shape entering crisis ✓ Airlines already underwent consolidation ✓ Airline bailouts ✓ Large domestic market	✓ Airline bailouts ✓ Select airlines in good financial shape ✗ Airline capacity consolidation ✗ Low GDP growth ✗ Rail competition ✗ Brexit ✗ "Flight shaming" trend	✓ China GDP still well above world average ✓ Increased China outbound travel ✓ India latent growth potential ✓ Very large domestic markets in China and India ✓ Many national airlines with state backing ✗ Some markets reliant on budget long-haul leisure	✓ Several large domestic markets ✓ No substitutes to aviation ✓ Strong VFR links to NAM and EUR ✗ Deteriorating GDP before COVID-19 throughout region ✗ Over-reliance on commodities and China ✗ Several airlines with weak balance sheets ✗ Limited state aid to airlines	✓ Immature markets with latent demand ✓ Strategic importance to China ✗ Overly reliant on non-African airlines ✗ Weak GDP outlook in major economies ✗ Security concerns (health, terrorism)

Given the expectation that domestic traffic will recover before international traffic, the tighter economic linkages that typically exist among countries within the same region, and with the expected reduction in wide-body aircraft fleets as airlines retire, park, or cancel wide-body orders, we expect regions with a higher proportion of domestic and intra-regional traffic to recover sooner. This benefits Asia, the Pacific, and North America, which have very large domestic and regional markets, but it slows the recovery in Africa and Latin America (Exhibit 7).

Exhibit 7: Segment passenger mix by world region

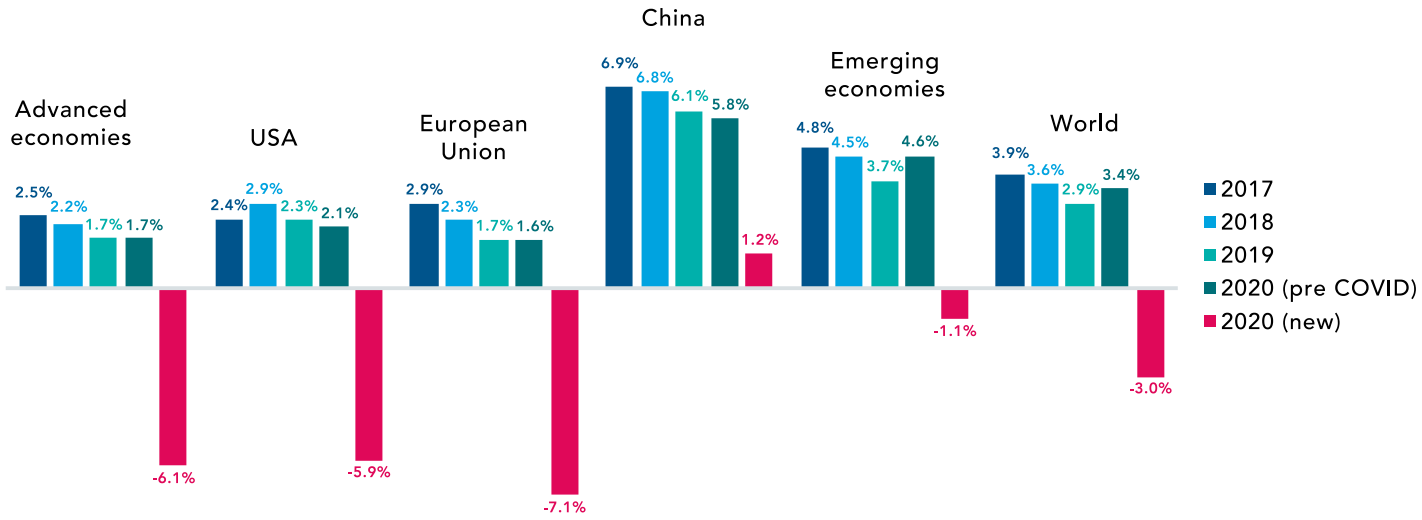
Source: ICF analysis



It bears reminding that COVID-19 surfaced just as economies in China and advanced economies were slowing. The latest outlook is for the world to enter a recession this year, with the full scale of its impact still unknown (Exhibit 8).

Exhibit 8: GDP by world region

Source: IMF World Economic Outlook, April 2020



We recognize that there will be significant variance within each region. Individual countries or airports will recover at different speeds depending on demand-side factors such as the health of the economy, the mix of domestic and international travel, passenger segmentation, and supply-side factors such as the state of airlines serving the market.

Actions to mitigate COVID-19's impact and speed up the recovery

The sharp drop in near-term demand should not be a cause for despair. Rather, it should serve as a call-to-action. Business managers have many weapons in their arsenal to help mitigate the impact from a drop in demand, and they can influence the shape and speed of the recovery. Aviation will recover and "social distancing" will fade into memory, but in the meantime, there are specific actions that businesses can take as we enter the "pre-recovery phase" (Exhibit 9).

Exhibit 9: Representative actions by industry segment

Stakeholder	Actions
Airlines	■ Network realignment and fleet optimization to serve market segments likely to prove most resilient during a pre-recovery with the lowest cost ■ 360-degree assessment of cost savings opportunities that prioritize bigger-ticket items with the biggest near-term cost savings (e.g., crew productivity, distribution fees and sales commissions, onboard product, MRO supply chain needs and inventory levels, facility downsizing, and remote work) ■ Communications strategy, backed by concrete and effective health safety measures, to win back customer confidence (including actions to ensure cleanliness and relaxed ticket restrictions to give passengers more peace of mind)
Airports	■ Facility needs assessment to identify opportunities for partial facility closures to reduce Opex and defer Capex ■ Air service recuperation and development strategy to promote routes that should be more resilient during the "pre-recovery phase," including financial incentives ■ Adapted commercial program and contracts to balance tenant viability with revenue generation ■ Communications strategy, backed by concrete and effective health safety measures, to win back customer confidence ■ Updated continuity of operations plans to better prepare for future disasters
Destination Marketing Organizations	■ Air service retention and development strategy to promote destination during the pandemic ■ Communications strategy, backed by concrete and effective health safety measures, to win back customer confidence
Industry Associations	■ Coordinated efforts to build awareness of market conditions and best practices on health safety protocols ■ Develop new standards for recovery and the new normal ■ A positive and proactive role in consumer, citizen, and policymaker engagement
MRO	■ Accelerated MRO IT Mobile solutions to support distancing and headcount efficiency ■ Plans to optimize and sell off surplus inventory

Years to recover pre COVID-19 traffic

Source: ICF analysis

About the authors

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Carlos Ozores is an air transport specialist with more than 18 years of experience in aviation strategy and business planning. He advises senior management of airlines and airport operators on strategy development and supports investors with commercial due diligence of investment targets. Carlos offers clients a global perspective on solving local issues thanks to extensive work experience across all world regions.

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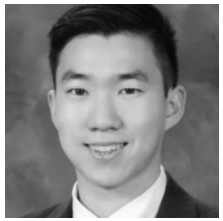

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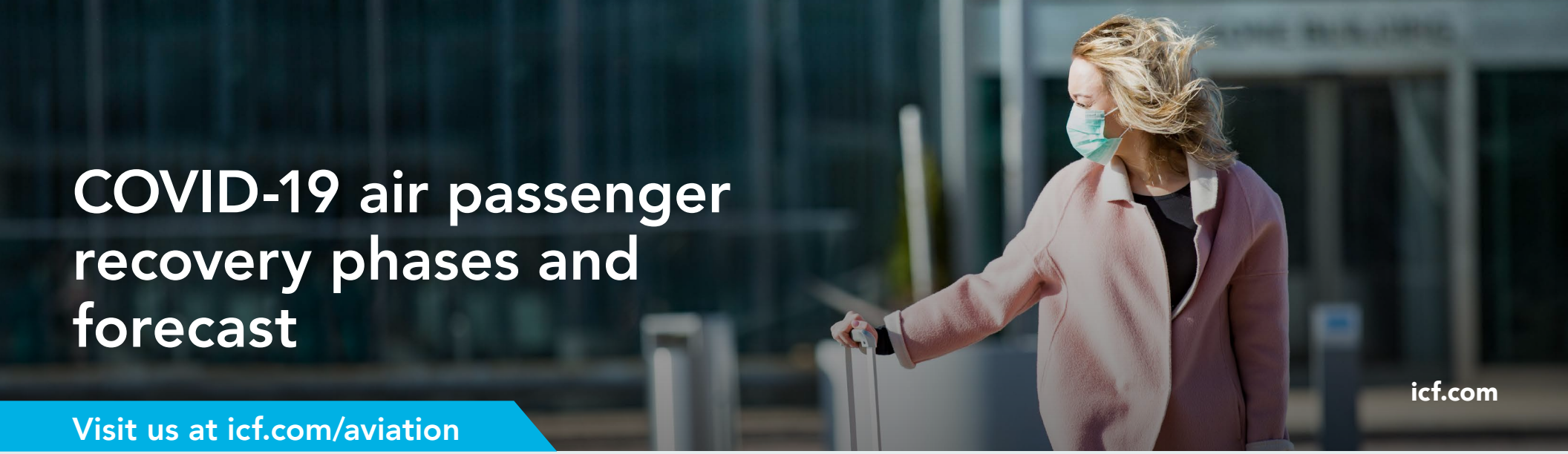
COVID-19 air passenger recovery phases and forecast



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Our Aviation Insights

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ACI ADVISORY BULLETIN

Economic impact assessment of COVID-19 on the airport business

Half of passenger traffic and more than half of revenues wiped out in 2020

Effective recovery requires coordinated approach led by international institutions

Montreal, 5 May 2020 – The ongoing COVID-19 pandemic has resulted in a full-scale transportation crisis with the imposition of travel restrictions and suspension of flights in a global effort to contain the spread of the virus. Aviation has been brought to a virtual halt and the industry is in survival mode, crippled by the loss of traffic and revenues.

The unique feature of the ongoing crisis is the fact that both the supply and the demand sides of the equation are suppressed. On one hand, most flights are suspended, and travel is severely restricted while, on the other hand, air transport demand, particularly the passenger segment, has collapsed. The latter is a result of an idiosyncratic combination of economic and behavioural factors. The deteriorating macroeconomic situation and loss of income is added to by consumer concern that they may be susceptible to contracting the virus if they fly. Either and both conditions lead to avoidance or postponement of travel plans.

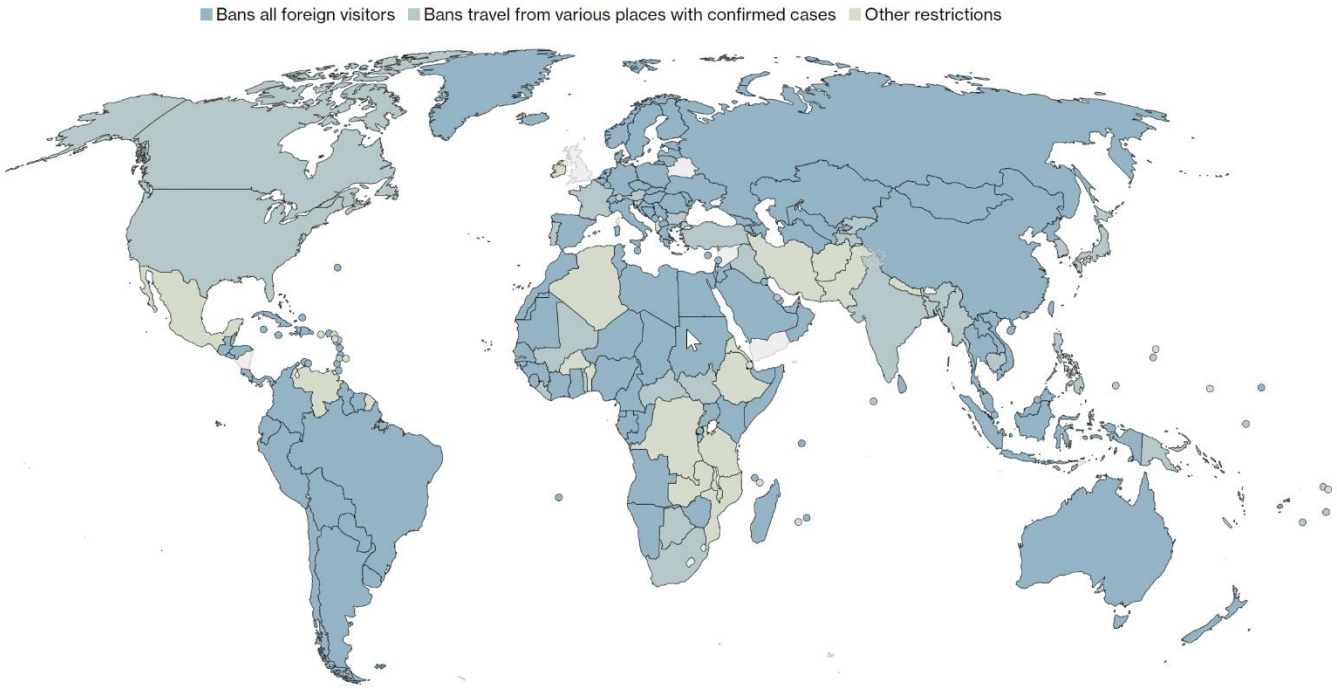
Travel restrictions

According to the recently released report from the World Tourism Organization (UNWTO), the United Nations' agency for tourism, as of end of April, 100% of destinations now have restrictions in place. As well, 83% have had COVID-19-related restrictions in place for at least four weeks previous. More specifically, the analysis based on 217 destinations worldwide reveals the following:

- 45% have totally or partially closed their borders for tourists: "passengers are not allowed to enter"
- 30% have suspended totally or partially international flights: "all flights are suspended"
- 18% are banning the entry for passengers from specific countries of origin or passengers who have transited through specific destinations, and
- 7% are applying different measures, such as quarantine or self-isolation for 14 days and visa measures.

Chart 1 shows three key types of travel restrictions on a global scale due to COVID-19.

Chart 1: Places restricting travel because of the outbreak (end of April)



Source: Adapted from Bloomberg; based on IATA, U.S. Dept. of State, Bloomberg News reporting, updated 24 April 2020.

At the airport level, the ICAO Global COVID-19 Airport Status reveals the list of restricted airports and those airports that are fully closed to commercial air services.

Macroeconomic context

The recent figures from the International Monetary Fund (IMF) published in the April 2020 Update of the World Economic Outlook (WEO) illustrate the economic fallout, with an estimated decline in Gross Domestic Product (GDP) of at least 3 percentage points on a global scale.

The estimates also suggest that the brunt of the decline in global output will be concentrated in the advanced economies, though emerging markets and developing economies will not be immune to the economic ramifications (-6.1 and -1 percentage points respectively). See Table 1, below.

Nevertheless, the aggregate economic figures tend to mask the catastrophic situation in air transportation. As classified by consulting companies and rating agencies, air transport is one of the hardest-hit industries by the decline in revenues and stock price of its leading companies.

This third economic impact assessment takes an evidence-based approach in portraying the current status of the industry in terms of passenger traffic and revenues

taking into account the latest data collected from world's airports and an array of other inputs from ACI regional offices and industry experts.

Table 1: Latest world economic outlook growth projections (real GDP, annual % change, 2019–2021)

		PROJECTIONS	
	2019	2020	2021
World output	**2.9**	**-3.0**	**5.8**
Advanced economies	**1.7**	**-6.1**	**4.5**
United States	2.3	-5.9	4.7
Euro area	1.2	-7.5	4.7
Germany	0.6	-7.0	5.2
France	1.3	-7.2	4.5
Italy	0.3	-9.1	4.8
Spain	2.0	-8.0	4.3
Japan	0.7	-5.2	3.0
United Kingdom	1.4	-6.5	4.0
Canada	1.6	-6.2	4.2
Other advanced economies	1.7	-4.6	4.5
Emerging markets and developing economies	**3.7**	**-1.0**	**6.6**
Emerging and developing Asia	5.5	1.0	8.5
China	6.1	1.2	9.2
India	4.2	1.9	7.4
ASEAN-5	4.8	-0.6	7.8
Emerging and developing Europe	2.1	-5.2	4.2
Russia	1.3	-5.5	3.5
Latin America and the Caribbean	0.1	-5.2	3.4
Brazil	1.1	-5.3	2.9
Mexico	-0.1	-6.6	3.0
Middle East and Central Asia	1.2	-2.8	4.0
Saudi Arabia	0.3	-2.3	2.9
Sub-Saharan Africa	3.1	-1.6	4.1
Nigeria	2.2	-3.4	2.4
South Africa	0.2	-5.8	4.0
Low-income developing countries	5.1	0.4	5.6

Source: Adapted from IMF, World Economic Outlook, April 2020

Passenger traffic in recent years: "The Good"

In the last two years, global passenger traffic posted growth: traffic grew to 8.8 billion passengers in 2018 and then increased to more than 9.1 billion passengers in 2019. This represented growth of +6.4% and +3.4% year-over-year, respectively.

Even though traffic growth started showing signs of a slowdown, it was a natural reflection of the late stage of the business cycle, characterized by moderating economic

growth, falling corporate profits, slowing sales and growing inventories. In the beginning of the year, the world's leading economy — the United States — documented 126 consecutive months of growth, the longest economic expansion in its history. As such, further moderation in the global economy and consequently air transport demand was expected in response to overheated markets.

Nevertheless, ACI had forecasted that global passenger traffic would reach the 9.5 billion passenger mark in 2020, reflective of a +4.6% forecasted growth year-over-year. The global passenger traffic forecast had been slashed to 9.3 billion passengers, equivalent of +1.6% growth year-over-year, however. As the COVID-19 outbreak started to unfold in Asia-Pacific from the beginning of the year, continued in Europe, and eventually spread across the globe affecting practically all countries and aviation markets, it became clear this year that such volume of traffic is unattainable.

However, the second week of March came as a game changer, whereby an overwhelming majority of national governments implemented strict confinement measures which eventually resulted in what the IMF later characterized as the "Great Lockdown"—the worst economic downturn since the Great Depression.

The first quarter of 2020: "The Bad"

The most comprehensive traffic figures collected from the world's airports demonstrate that the COVID-19 impact on aviation was rapid, as global passenger traffic grew by just +2% in January 2020, down from +3.7% a month prior and below the average growth rate recorded in the preceding six months (+2.6%). Decreased traffic volumes were more apparent in the Asia-Pacific region at -1.5%.

The passenger traffic decline in February was even more pronounced, as Asia-Pacific witnessed a substantial traffic loss of –38.4%. Consequently, the world's airports recorded a combined decline of -10.7%. As the COVID-19 outbreak had been rapidly progressing in other regions, the imposition of travel restrictions and national lockdowns brought aviation to a virtual standstill by the end of March.

On a global scale, passenger traffic declined by -56.8% in the month of March year-over-year and by -58.6% as compared to the previously projected volumes under a pre-COVID-19 baseline. In the first three months of 2020, passenger traffic showed a decline of -28.4% versus previously projected volumes and by -26.2% year-over-year as compared to 2019. The steepest reductions were recorded in Asia-Pacific, Middle East and Europe of -38.9%, -28.1% and -22.4% respectively.

The second quarter started to reveal even grimmer situation for air transport and consequently, the resultant impact on airports.

The second quarter of 2020: "The Ugly"

The second quarter was truly unprecedented: 17,000 wide bodies, narrow bodies and regional jets, or about two-thirds (64%) of the global fleet, remained on the ground.

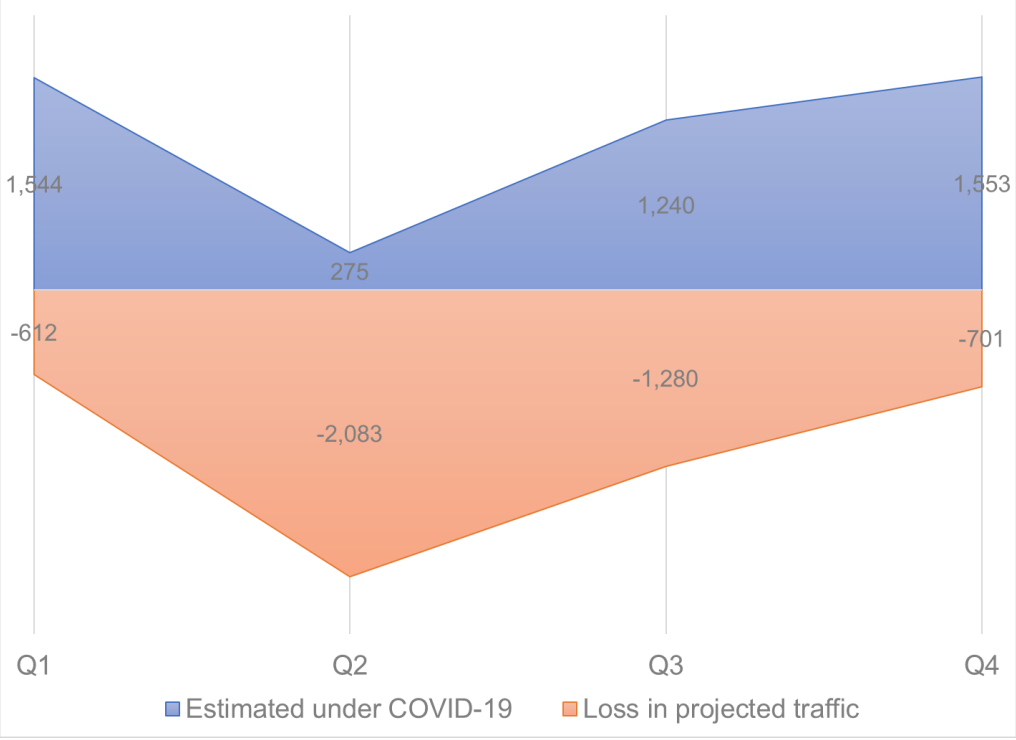
From an air traffic management perspective, traffic in most regions declined by more than -80%, with regional movement declines varying from a -90% decline in South America to a -56% decrease in North America—testament to the higher resilience of domestic traffic in light of severe restrictions on international flights.
Nevertheless, even these figures do not represent the complete picture of the ongoing calamity in air transport as many airlines continue flying near-empty aircraft.

As for airports, passenger traffic volumes declined by 90% in April on a global scale, ranging from -97% in Europe to -70% in Asia-Pacific. Assuming only slight improvements in aviation activity with slow and expected gradual removal of travel restrictions in few aviation markets as we approach the summer months, the estimated passenger traffic volume decline is expected to dive further.

The loss is expected to be -88.4% in the second quarter of 2020 versus projected levels under a pre-COVID-19 trajectory. Consequently, the figures suggest that aviation will bear the heaviest impact of the Great Lockdown in the second quarter of 2020 assuming gradual alleviation of confinement measures and general reopening of the economies across the globe.

This is illustrated in Chart 2 and Table 2 below. On a global scale, airports are expected to lose more than 2 billion passengers in the second quarter of 2020 alone and 4.7 billion for the whole of 2020. In all six regions, the decline exceeds -84% from the projected baseline in the second quarter, and goes beyond -90% in the Middle East, Latin America-Caribbean and Europe.

Chart 2: Reduction in global quarterly passenger traffic 2020 (million passengers)



Source: ACI World

Table 2: Quarterly airport passenger traffic volumes in 2020 by region: forecasted (pre-COVID-19) versus estimated (COVID-19) (million passengers)

Region	Q1	Q2	Q3	Q4	2020
Forecasted (pre-COVID-19)*					
Africa	55	58	68	61	241
Asia-Pacific	854	834	852	854	3,395
Europe	488	664	768	561	2,482
Latin America-Caribbean	169	160	170	155	654
Middle East	113	97	110	108	429
North America	476	545	552	515	2,088
World	**2,155**	**2,358**	**2,521**	**2,254**	**9,288**
Estimated under COVID-19**					
Africa	43	7	37	40	127
Asia-Pacific	522	102	413	561	1,598
Europe	379	63	281	343	1,065
Latin America-Caribbean	137	13	97	119	365
Middle East	81	4	59	83	228
North America	383	86	353	408	1,229
World	**1,544**	**275**	**1,240**	**1,553**	**4,611**
Reduction					
Africa	-12	-51	-31	-20	-114
Asia-Pacific	-332	-732	-439	-293	-1,797
Europe	-110	-601	-487	-218	-1,416
Latin America-Caribbean	-32	-147	-73	-37	-289
Middle East	-32	-93	-51	-25	-201
North America	-94	-459	-199	-107	-859
World	**-612**	**-2,083**	**-1,280**	**-701**	**-4,676**
% Change					
Africa	-22.2%	-88.4%	-45.1%	-33.6%	-47.3%
Asia-Pacific	-38.9%	-87.8%	-51.5%	-34.3%	-52.9%
Europe	-22.4%	-90.5%	-63.4%	-38.9%	-57.1%
Latin America-Caribbean	-19.0%	-91.8%	-43.2%	-23.7%	-44.2%
Middle East	-28.1%	-95.8%	-46.1%	-23.4%	-46.9%
North America	-19.7%	-84.2%	-36.1%	-20.8%	-41.1%
World	**-28.4%**	**-88.4%**	**-50.8%**	**-31.1%**	**-50.4%**

*The "pre-COVID-19" scenario based on adjusted World Airport Traffic Forecasts (WATF) 2019–2040 considering latest insights provided by ACI Regional offices and other inputs
**Estimated passenger traffic volumes based on the Official Airline Guide (OAG) scheduled seat capacity and broad range of inputs provided by ACI Regional offices and industry experts (Source: ACI World)

Traffic mix and seasonality

Even though the state of aviation under COVID-19 differs from one country to another and different regions are affected to varying degrees, two patterns play a major role:

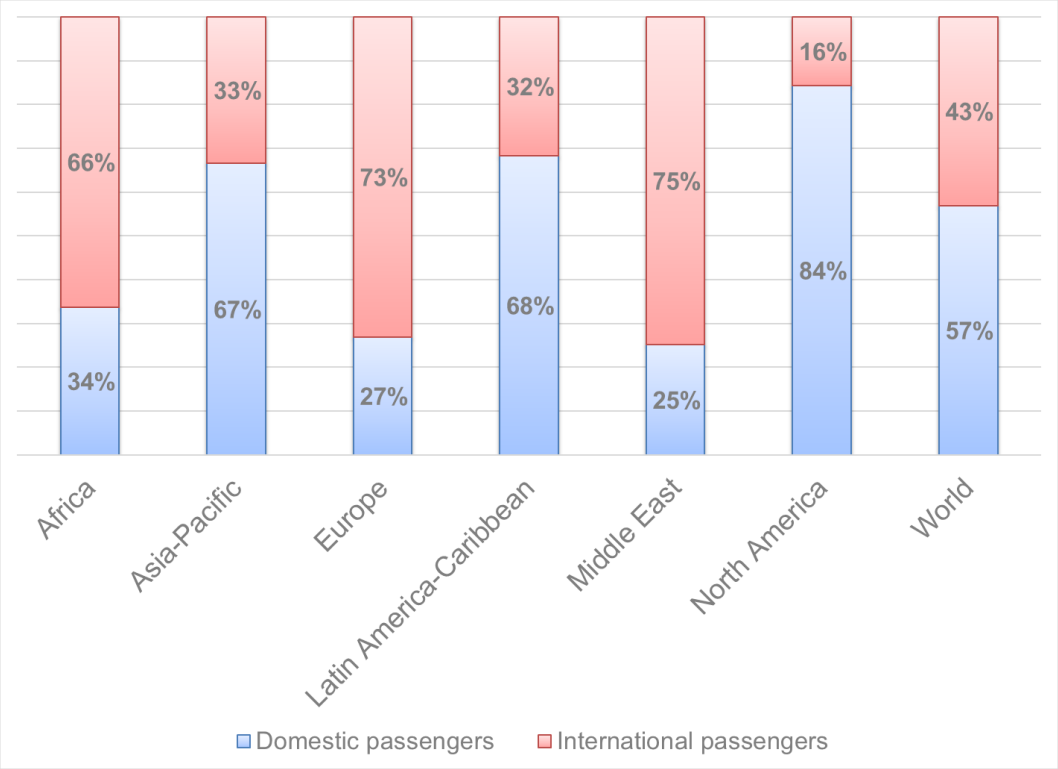
1. traffic mix in terms of relative proportions of domestic versus international traffic, and
2. seasonality patterns.

Evidence suggests that aviation markets with a significant share of domestic operations, which are often characterized by vast geography and sizable populations, are more resilient in the face of the ongoing health crisis.

China and the United States exemplify this pattern, as both countries continue to display a modest number of domestic flights. The major international aviation markets, on the other hand, demonstrate in general much deeper declines in traffic volumes.

Chart 3 illustrates the contrast between Africa, Europe and Middle East, characterized by high proportions of international traffic of 66%, 73% and 75% respectively, and three other regions—Asia-Pacific, Latin-America/Caribbean and North America with international traffic proportions of 33%, 32% and 16% respectively.

Chart 3: Share of domestic versus international passenger traffic by region (2018)



Source: ACI World Airport Traffic Database 2020

As for seasonality patterns, these differ from one region to another, but two regions sit on the opposing ends of the spectrum. In Europe, monthly passenger traffic variations reflect the mainstream holiday period from May to September and movements from north to south. Asia-Pacific, on the other hand, is known for a relatively stable seasonality pattern and most major airports show negligible seasonal variations.

As the COVID-19 continues to unfold in Europe and North America, which are the second and third largest aviation markets respectively and are tightly interrelated with transatlantic routes, there is an additional downside risk to the recovery.

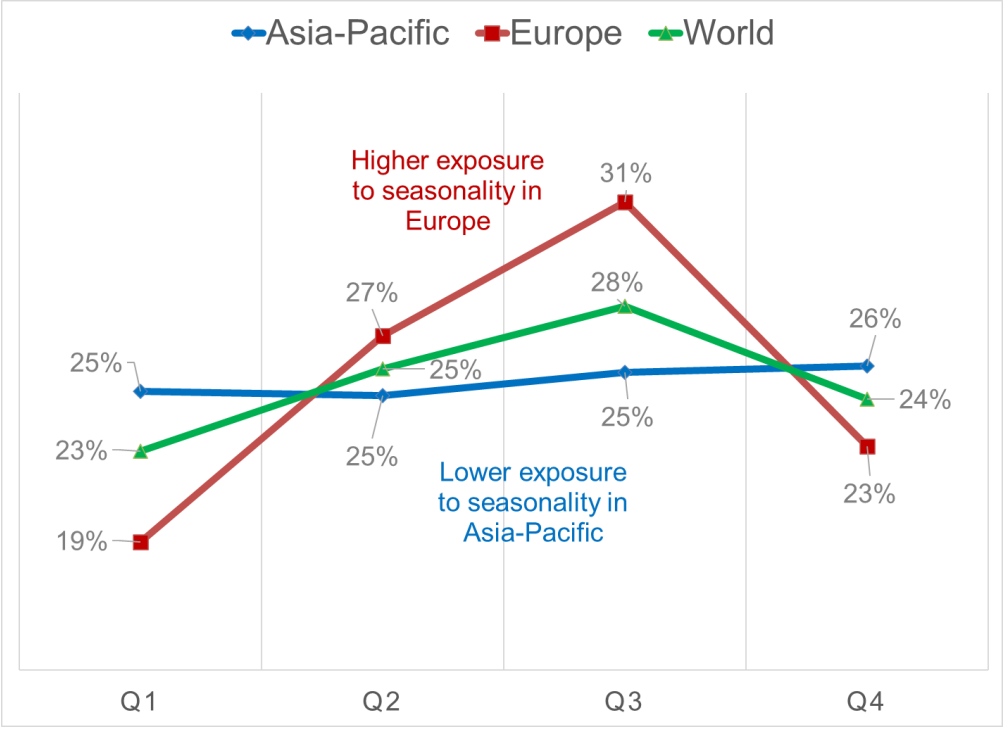
A prolonged health crisis may translate into a “lost summer” for the European airports, particularly those in the Mediterranean countries as well as the airports in the Central

and Northern Europe. Airports in North America and the Caribbean are also likely to suffer from hampered demand for international vacations, from the outbound and inbound traffic perspective, respectively.

Seasonal airports that had economic challenges even during normal times may lose a higher share of annual passenger traffic.

Chart 4 illustrates higher exposure of Europe to seasonality and hence a higher potential impact of COVID-19 on the year-end traffic results.

Chart 4: Seasonality patterns for selected regions – quarterly share of annual passenger traffic, 2017–2019 weighted average



Source: ACI World Airport Traffic Database 2020

Impact on airport revenues

Airports are multi-faceted businesses, engaging in commercial relationships with airlines, passengers and concessionaires. They receive their revenues from two primary sources: aeronautical activities and non-aeronautical activities.

Both revenue streams are vital to support the operation and sustainable development of airports.

They are used to recover the large capital costs incurred by airports as the airport industry is highly asset-intensive, as well as operating expenses and especially staff expenses.

Revenue channels are paralyzed by the unprecedented reductions in aviation and commercial activity.

The fall in the number of passengers and flights has resulted in reduced revenues from airport charges (landing and parking charges paid by airlines for instance, and passenger service charges and security charges paid by passengers).

Considering the ongoing large-scale lockdowns, however, commercial activities are equally affected.

Non-aeronautical sources of revenue usually provide diversification of airport income streams and serve as an additional cushion during economic downturns.

In a similar way, revenues from commercial activities have plummeted forcing many outlets to shut down.

Airports are, at the same time, taking all possible measures to preserve financial stability. They are reducing, to a minimum, variable costs by closing portions of infrastructure, furloughing staff, and postponing capital expenditure.

These difficult decisions represent serious impacts for the communities that airports serve. They are not taken lightly but are necessary in response to the crisis.

As can be seen in Table 3, the reduction of revenues from the projected baseline is likely to reach -90% on a global level in the second quarter of 2020.

Europe is expected to be the hardest-hit region as it may lose close to $37 billion (figures in US Dollars) in revenues or more than 60%, followed by Asia-Pacific with $29.4 billion or -59%.

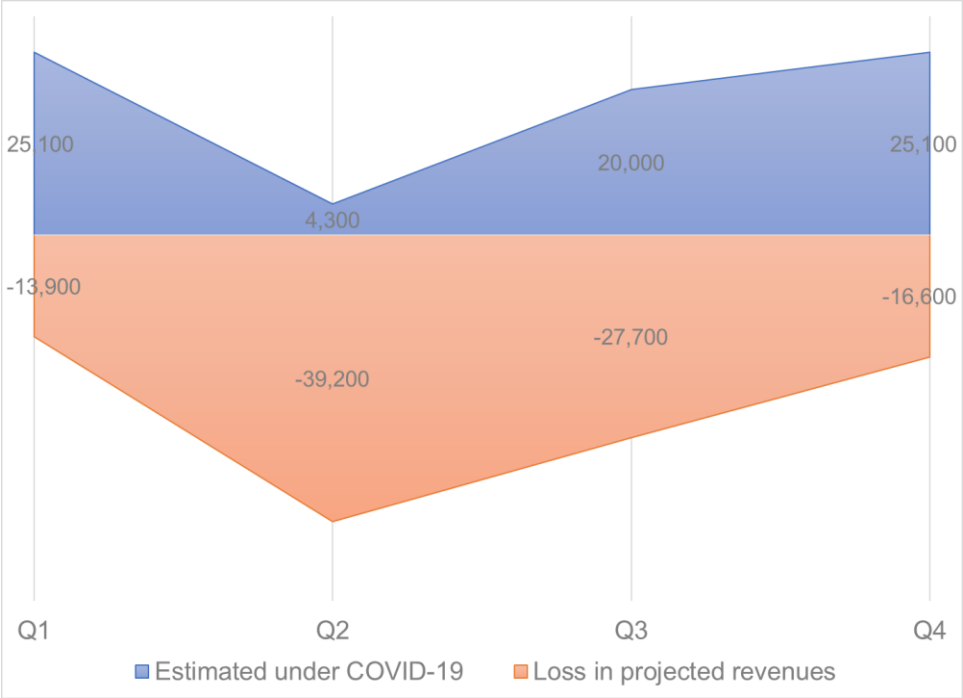
As for the 2020 year-end, estimates point to a decline of $97.4 billion or -56.7%. Chart 5 illustrates that the brunt of the hit will be concentrated in the second and third quarters—falling by $39.2 and $27.7 billion, respectively.

Table 3: Quarterly total airport revenues in 2020 by region: forecasted (pre-COVID-19) versus estimated (COVID-19) (million USD)

Region	Q1	Q2	Q3	Q4	2020
Forecasted (pre-COVID-19)*					
Africa	1,000	1,000	1,200	1,100	4,300
Asia-Pacific	12,400	12,200	12,600	12,700	49,900
Europe	11,600	15,700	18,500	13,500	59,300
Latin America-Caribbean	2,700	2,500	2,700	2,600	10,500
Middle East	3,300	3,100	3,600	3,200	13,200
North America	8,000	9,000	9,100	8,600	34,700
World	**39,000**	**43,500**	**47,700**	**41,700**	**171,900**
Estimated under COVID-19**					
Africa	700	100	600	700	2,100
Asia-Pacific	6,700	1,300	5,300	7,200	20,500
Europe	7,900	1,300	5,900	7,100	22,200
Latin America-Caribbean	1,900	200	1,400	1,700	5,200
Middle East	2,200	100	1,600	2,300	6,200
North America	5,700	1,300	5,200	6,100	18,300
World	**25,100**	**4,300**	**20,000**	**25,100**	**74,500**
Reduction					
Africa	-300	-900	-600	-400	-2,200
Asia-Pacific	-5,700	-10,900	-7,300	-5,500	-29,400
Europe	-3,700	-14,400	-12,600	-6,400	-37,100
Latin America-Caribbean	-800	-2,300	-1,300	-900	-5,300
Middle East	-1,100	-3,000	-2,000	-900	-7,000
North America	-2,300	-7,700	-3,900	-2,500	-16,400
World	**-13,900**	**-39,200**	**-27,700**	**-16,600**	**-97,400**
% Change					
Africa	-30.0%	-90.0%	-50.0%	-36.4%	-51.2%
Asia-Pacific	-46.0%	-89.3%	-57.9%	-43.3%	-58.9%
Europe	-31.9%	-91.7%	-68.1%	-47.4%	-62.6%
Latin America-Caribbean	-29.6%	-92.0%	-48.1%	-34.6%	-50.5%
Middle East	-33.3%	-96.8%	-55.6%	-28.1%	-53.0%
North America	-28.8%	-85.6%	-42.9%	-29.1%	-47.3%
World	**-35.6%**	**-90.1%**	**-58.1%**	**-39.8%**	**-56.7%**

*The "pre-COVID-19" scenario based on adjusted World Airport Traffic Forecasts (WATF) 2019–2040 considering latest insights provided by ACI Regional offices and other inputs
**Estimated passenger traffic volumes based on the Official Airline Guide (OAG) scheduled seat capacity and broad range of inputs provided by ACI Regional offices and industry experts (Source: ACI World)

Chart 5: Reduction in global quarterly airport revenues 2020 (million USD)



Source: ACI World

Methodological note

- ACI World estimated the impact of the coronavirus outbreak 2019 (COVID-19) on the airport industry in terms of potential losses in traffic and revenues based primarily on two key data elements: estimated traffic considering the latest COVID-19 statistics and unit revenues derived from the Airport Key Performance Indicators 2020, as total airport revenues are largely a function of traffic, while unit revenues have remained stable in the recent years.
- Traffic estimates for Q1 2020 were generated using data collected by ACI World from airports for that period.
- The impact has been measured as a difference between the “business as usual scenario” (BAU) for Q1 2020 as well as year-end 2020 and the “COVID-19 scenario” with estimated traffic and revenues for Q1 2020 and year-end 2020, on a regional basis.
- The Q1 2020 traffic estimates, and hence the revenue figures, take into account the seasonality patterns for the year 2019 calculated on a regional basis.
- The BAU forecasts were calculated using the latest data up to December 2019 and projecting 1 year ahead. A combination forecast approach was used, which shows to be consistently performing adequately (mean absolute percentage error—MAPE < 2%) in cross-validation exercises.
- The impact of COVID-19 on passenger traffic for year-end 2020 was estimated under the assumption that most containment measures and flight restrictions will be lifted by the end of summer 2020. This implies a difficult second quarter for

the aviation industry, with a partial recovery in Q3 and Q4. However, the impact on passenger traffic is assumed to be long lasting, implying a slow and steady recovery possibly spanning far beyond the end of 2020.

- The revenue per passenger indicators (unit revenues) were calculated for airports on a country-by-country basis. In cases where the indicators were unavailable, regional indicators were applied as an approximation for the country-level indicators.
- Considering limited information on the impact of disease outbreaks on unit revenues, airport revenues were estimated under an assumption of slightly reduced unit revenues as agreed by a panel of experts. As such, the estimates represent an optimistic scenario, as it is highly likely that unit revenues will be more adversely impacted, both on the aeronautical and non-aeronautical sides of the business.

The main limitation of such methodology is that is does not consider additional factors affecting traffic volumes in parallel with COVID-19, such as macroeconomic ramifications of the ongoing crisis, changes in consumer behaviour and other structural shifts. As such, a fraction of the traffic and revenues losses can be accounted for factors either completely unrelated to COVID-19 or induced by COVID-19.

Ends

1. Airports Council International (ACI), the trade association of the world's airports, was founded in 1991 with the objective of fostering cooperation among its member airports and other partners in world aviation, including the International Civil Aviation Organization, the International Air Transport Association and the Civil Air Navigation Services Organization. In representing the best interests of airports during key phases of policy development, ACI makes a significant contribution toward ensuring a global air transport system that is safe, secure, customer-centric and environmentally sustainable. As of January 2020, ACI serves 668 members, operating 1979 airports in 176 countries.

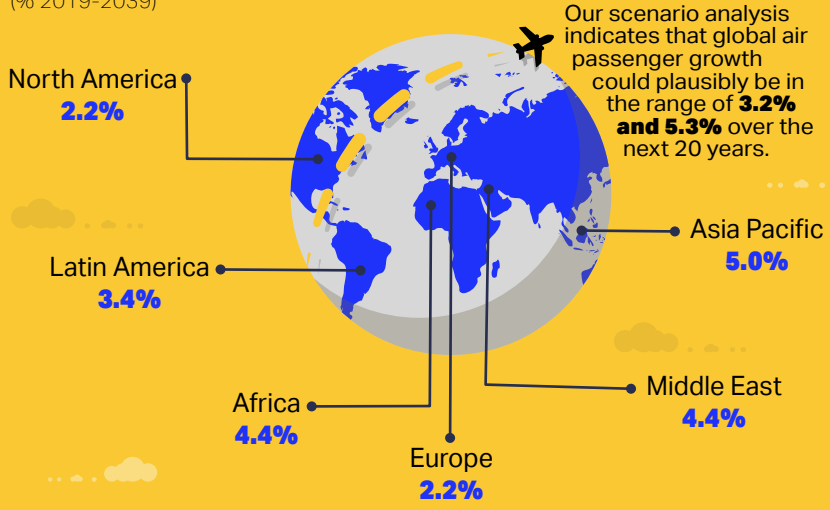
COVID-19 HAS A **PROFOUND IMPACT** ON OUR FORECAST PROFILE IN THE NEAR-TERM WITH A SHARP FALL IN 2020 AND **STRONG RECOVERY** IN 2021 AND 2022.

There remains considerable uncertainty surrounding the near-term impact of the pandemic on air travel demand.

2019-2039
CURRENT TRENDS

Growth and change in passenger journeys by region

(% 2019-2039)



Source: IATA/Tourism Economics
Air Passenger Forecasts, May 2020

Country pairs with the biggest changes in passenger numbers

International country pairs only

Country pair	Annual % growth
China - Thailand	6.2%
India - UAE	8.1%
China - Japan	5.0%

Domestic Markets

Country pair	Annual % growth
Within China	5.3%
Within India	7.2%
Within US	2.0%

Source: IATA/Tourism Economics
Air Passenger Forecasts, May 2020

3.7%
annual average growth in global air passenger journeys over the next **20 years.**

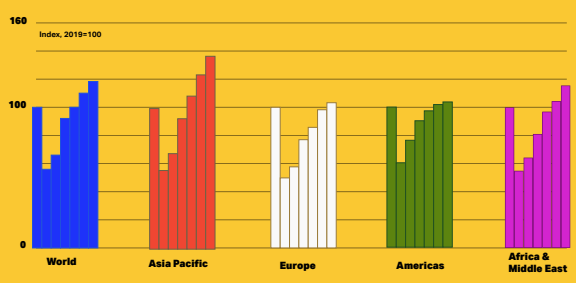
2.1x
number of air passenger journeys **in 2039** compared with today

SHORT -TERM SCENARIO ANALYSIS

The **short-term scenario** is based on a slower than expected recovery in economic activity from the virus. As a starting point, the pandemic is assumed to be worse (i.e. of longer duration) than that anticipated in the base case.

The Asia Pacific and Africa&Middle East regions are expected to **recover more quickly** than the more mature air transport markets of North America and Europe.

Short-term downside scenario, 2019 -2025



LONG -TERM SCENARIO ANALYSIS

The **'Return to globalization'** scenario constructs a set of consistent alternative assumptions regarding government trade and air transport policies.

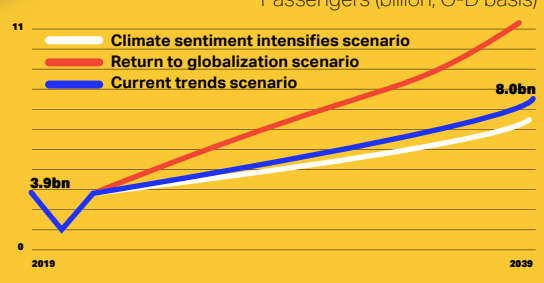
The **'Climate sentiment intensifies'** scenario is based around a widening and deepening of recent developments in Northern Europe, where consumers have reduced air travel and governments have introduced carbon taxes on air travel.

2.8bn additional passengers per year by 2039 than in the current trends scenario. (1)

0.7bn fewer passengers per year by 2039 than in the current trends scenario. (2)

Scenario results

Passengers (billion, O-D basis)



Source: IATA/Tourism Economics
Air Passenger Forecasts, May 2020

Learn more what's inside the IATA 20-year Air Passenger Forecast
www.iata.org/pax-forecast

IATA

Delhi International Airport Private Limited

Point of View on treatment of specific elements of capital and operating expenditure for determining Regulatory Asset Base (RAB) and basis for proposing a fair rate of return on such investment

KPMG Advisory Services Private Limited
February 2012

This report contains 21 pages

Table of Contents

Statement of Confidentiality

- This report has been prepared by KPMG Advisory Services Pvt Ltd (KASPL), an Indian private limited company and a member firm of the KPMG network of independent member firms affiliated with KPMG International, a Swiss cooperative.
- This report is provided to Delhi International Airport Private Limited (DIAL) pursuant to our Engagement Letter, dated 12 Jan 2012, and is subject in all respects to the terms and conditions of the engagement letter, including restrictions on disclosure of this report to third parties.
- If this report is received by anyone other than DIAL the recipient is placed on notice that the attached report has been prepared solely for our client for its own internal use and this report and its contents may not be shared with or disclosed to anyone by the recipient without the express written consent of DIAL and KASPL. KASPL shall have no liability, and shall pursue all available legal and equitable remedies against recipient, for the unauthorized use or distribution of this report.

Disclaimer

- This document is being submitted to Delhi International Airport Pvt. Ltd. (DIAL) as the Final Report for our engagement of Assisting DIAL on specific regulatory.
- This Final Report pertains to the scope of work as per LOE dated 12 January 2012.
- The report contains KPMG's analysis of the Consultation Paper, data provided by DIAL, secondary sources of published information and incorporates the inputs gathered through meetings with industry sources, which for reasons of confidentiality, cannot be quoted in this document. While information obtained from the public domain has not been verified for authenticity, we have obtained information, as far as possible, from sources generally considered to be reliable
- Our analysis is based on the prevailing market conditions and regulatory environment and any change may impact the outcome of our review
- Wherever our report makes reference to 'KPMG Analysis', it indicates that we have (where specified) undertaken certain analytical activities on the underlying data to arrive at the information presented; we do not accept responsibility for the underlying data. Wherever information was not available in the public domain, suitable assumptions were made to extrapolate values for the same
- We must emphasize that the realization of the prospective financial information set out within our report (based on secondary sources, as well as our internal analysis), is dependent on the continuing validity of the assumptions on which it is based. The assumptions will need to be reviewed and revised to reflect such changes in business trends, cost structures or the direction of the business as further clarity emerges. We accept no responsibility for the realization of the prospective financial information. Our inferences therefore will not and cannot be directed to provide any assurance about the achievability of the projections. Since the projections relate to the future, actual results are likely to be different from those shown in the prospective financial information because events and circumstances frequently do not occur as expected, and differences may be material. Any advice, opinion and/ or recommendation indicated in this document shall not amount to any form of guarantee that KPMG has determined and/ or predicted future events or circumstances

List of Abbreviations

Term	Description
AAI	Airports Authority of India
AERA	Airports Economic Regulatory Authority of India
Capex	Capital Expenditure
CAPM	Capital Asset Pricing Model
CGD	City Gas Distribution
Consultation Paper	Consultation paper issued by AERA on Determination of Aeronautical Tariff in respect of IGI Airport for the 1st Regulatory period
D/E	Debt Equity
DF	Development Fee
DIAL	Delhi International Airport Private Limited
FRoR	Fair Rate of Return
HRAB	Hypothetical Regulatory Asset Base
IGI Airport	Indira Gandhi International Airport
MoCA	Ministry of Civil Aviation
NPV	Net Present Value
NTA	Non Transfer Asset
OMDA	Operation, Management and Development Agreement
OSC	Operation Support Cost
OSP	Operation Support Period
PNGRB	Petroleum and Natural Gas Regulatory
RAB	Regulatory Asset Base
RoCE	Return on Capital Employed
ROE	Return on Equity
RSD	Refundable Security Deposit
SSA	State Support Agreement
TAMP	Tariff Authority of Major Ports
WACC	Weighted Average Cost of Capital
y-o-y	Year on year

1 Background

1.1 Delhi International Airport Pvt. Ltd. (DIAL) has filed a proposal for levy of aeronautical tariffs at the IGI Airport, New Delhi to Airports Economic Regulatory Authority (AERA/ the Authority). DIAL has sought KPMG's assistance in evaluating the consultation paper issued by AERA and preparing a point-of-view document on treatment of specific elements of capital & operating expenditure for the purpose of determining the Regulatory Asset Base (RAB) and the basis for proposing a fair rate of return (FRoR) on such investment. These are as detailed below:

A. Refundable Security Deposits (RSD)

a. treatment of lease (refundable security) deposits as quasi-equity based on
   i. analysis of approach taken by the regulator on similar airport sector transactions internationally, on a best-effort basis, using data available in the public domain
   ii. analysis of approach taken by regulator in other infrastructure sectors on comparable transactions based on data available in secondary domain
b. treatment of fair rate of return on such deposits

B. Hypothetical Regulatory Asset Base (HRAB)

Rationale for including only efficient operational costs for fair valuation of HRAB

C. Return on Equity

Case study on return on equity (RoE) from Power Sector

2 Refundable Security Deposits (RSD)

The analysis of return on capital expenditure (capex) funded through RSD has been carried out considering:

a. AERA's observations on whether DIAL should get return on capex funded through RSD?
b. the expected rate of return based on
   i. logical reasoning on cost of capital funded through RSD
   ii. lenders recognition of RSD as sponsor's contribution
   iii. comparables in infrastructure services under a regulated environment

2.1 **AERA's Observation:** In its consultation paper dated 3 January 2012, AERA has observed that:

a. Operation, Maintenance, Development Agreement (OMDA), defines "Equity" and the capex funded through RSD does not come under the

purview of this definition. Hence, RSD component is not Equity as per OMDA.

b. As per State Support Agreement (SSA), return on RAB is available on weighted average cost of capital (WACC) basis, where WACC has to be calculated considering the cost of each component of capital. Since, RSD under discussion is interest free, AERA has proposed to consider zero cost for WACC computation.

c. In addition to the above, AERA has proposed that RSD funds were not available to DIAL for utilization for any other purpose. Development fund (DF) would not have been permitted to DIAL in case it would have utilized RSD for any other purpose.

2.2 **Logical reasoning:** *Loss of revenues from lower annual lease rentals*

While structuring the transaction for lease of commercial land (part of Non-Transfer Assets (NTA)), DIAL had foregone a part of annual lease rentals in favour of upfront RSD. DIAL utilized such RSD to part fund the equity requirement for the project to the tune of INR 1,471 crore. The estimated loss in revenues to DIAL is as illustrated[1] below:

a. DIAL had received upfront RSD of INR 1,471 crore and annual lease rentals of INR 46 crore for first year (FY2010) and INR 79 crore for the second year (FY2011).

b. Annual lease rentals would escalate at least (minimum escalation rate as per existing agreements) by the rate of 5.50% y-o-y for next 57 years, starting from third financial year (FY2012).

c. Below are the NPV calculation under three scenarios considering discount rate of 16.16% (proposed WACC rate by DIAL)[2]:

   i. base case- with no investment of upfront RSD;

   ii. AERA's approach viz. zero returns on RSD invested in aeronautical capex; and

   iii. hypothetical scenario- where RSD is invested in non aeronautical business

Table 1: Base case (amount in INR crore)

Parameter	1st year	2nd year	30th year	57th year
Upfront RSD	1,471			(1,471)
Yearly lease rentals	46	79	354	1,501
Total Income	**1,517**	**79**	**354**	**30**
NPV @ 16.16%	**1,941**			

[1] Source: Facts of the illustration are based on discussion with DIAL's officials

[2] Source: Discussion with DIAL and as per Consultation Paper

Table 2: AERA's approach (amount in INR crore)

Parameter	1st year	2nd year	30th year	57th year
Upfront RSD	1,471			(1,471)
Yearly lease rentals	46	79	354	1,501
Investment in Aero assets	(1,471)			
Depreciation on RSD investment in Aero assets		54	0	0
Total Income	46	133	354	30
NPV @ 16.16%	**924**			

Table 3: Hypothetical Scenario (amount in INR crore)

Parameter	1st year	2nd year	30th year	57th year
Upfront RSD	1,471			(1,471)
Yearly lease rentals	46	79	354	1,501
Investment in other sector	(1,471)			
Return on such investments @ 25%		368	368	368
Return of investment*				1,471
Total Income	46	447	721	1,869
NPV @ 16.16%	**2,633**			

*Note: For the purpose of above illustration, it has been assumed that there is no change in market valuation at the end of 57th year. However, in a practical scenario, market valuation of INR 1,471 crore is expected to be higher.

d. Hypothetical scenario is based on the assumption that, in case DIAL did not invest in aeronautical assets, DIAL might have invested the RSD in non aeronautical businesses. An equity return of 25%[3] has been assumed for the purpose of above calculation to reflect the higher risk associated with the non-aeronautical business.

e. It is evident that there is an opportunity cost associated with RSD in terms of difference in NPV of receivables, as represented below:

Difference in NPV	Amount in crore
AERA's approach and Base Case	1,017
AERA's approach and Hypothetical Scenario	1,710

f. Even though RSD is interest free, it is evident from above that there is a cost attached to it in terms of foregone lease rentals.

[3] Source: Indicative returns based on no market study

2.3 **Logical reasoning:** *WACC is determined based on opportunity cost*

Professor Aswath Damodaran, defines cost of capital as "opportunity cost of all the capital invested in an enterprise[4]". "Opportunity cost is what you give up as a consequence of your decision to use a scarce resource in a particular way".By this definition, the opportunity cost of RSD, in DIAL's case, ought to be measured by the foregone lease rentals or returns from RSD in the next best use, and NOT the actual cost of funds.

2.4 **Logical reasoning:** *Risk Reward relationship for an Investment*

2.4.1 In business practice, it is expected that the returns *from investing or lending* should be commensurate with the risk associated with the project. For example, lenders determine the price of debt based on the risk related to project and associated opportunity cost. Similarly, return on equity is determined based on risk associated with the project and the opportunity cost.

2.4.2 In the current scenario, DIAL has already received RSD from real estate business, which has been recognized as liability in the books[5]. These are refundable by DIAL in the event of termination of lease agreement. DIAL has utilized these funds to part fund the aeronautical assets, however, there is no dilution in DIAL's liability. In case of early termination of lease of NTA, DIAL or shareholders of DIAL would be responsible to refund RSD to the lessee, subject to the conditions of the agreement. Therefore, it is evident that these funds have been infused as DIAL's contribution, which is similar to equity share capital.

2.4.3 Principle 1 of Schedule 1 of the SSA states that:

"Incentives Based: The JVC will be provided with appropriate incentives to operate in an efficient manner, optimising operating cost, maximising revenue and undertaking investment in an efficient, effective and timely manner and to this end will utilise a price cap methodology as per this Agreement."

Providing zero return on RSD would not be in line with the Principle1of SSA.

2.4.4 Zero return on RSD at this stage may not set the right precedent for any future investment by any private player in airport sector in India. Importantly, it contradicts Principle1 of the SSA by not providing any incentive for investment of RSD or equivalent sources of funds in the aeronautical business.

[4] Source: http://pages.stern.nyu.edu/~igiddy/articles/wacc_tutorial.pdf
[5] Source: Discussion with DIAL

2.4.5 Lenders have recognized this funding as part of sponsor's contribution making this investment riskier than debt (covered in detail in next section). Hence, it can be concluded that return on RSD should be at the least commensurate to the risk associated with investment in the aeronautical business.

2.5 **Lenders Recognition of RSD as Equity / Quasi Equity**

2.5.1 DIAL had raised debt to part fund the development of IGI Airport by a consortium of 10 banks[6]. **Nine out of ten banks are nationalized banks**, one being a publicly listed infrastructure investment firm. All the lenders treated RSD (to be realized at a later time) as sponsor's contribution (part of equity) while determining D/E ratio and determining the cost of debt. If RSD were not considered as part of equity:

a. Higher leverage and more risk for banks resulting in higher cost of debt
b. higher pass through cost in terms of higher interest cost

2.5.2 Lenders have treated RSD as part of sponsor's contribution, while sanctioning debt. RSD utilised to fund the capex has risk inherent to that associated with equity. Accordingly, for the purpose of FRoR calculation, returns equivalent to equity may be considered for RSD.

2.6 **Other Infrastructure Sectors:** *Regulators in other infrastructure sectors do not consider source of funding while calculating returns for the project*

2.6.1 *City Gas Distribution (CGD):* Petroleum & Natural Gas Regulatory Board (PNGRB), the market regulator, has not explicitly disallowed distribution companies to fund their subsequent capex through the security deposits received from their consumers. The guidelines allow the entity to earn a reasonable rate of return on entire capital employed. Moreover, PNGRB, in its guidelines, **has clearly acknowledged that these security deposits would form part of the company's liability and it should not be reduced from the total capital employed while determining the network tariff**. Relevant extract from the regulation are stated below:

a. "*Entity may collect refundable interest free security deposit as specified under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities for Laying, Building, Operating or Expanding City or Local Natural Gas Distribution Networks) Regulations, 2008. Such deposit is towards the safe-keeping of the meter and is to be refunded in full to the domestic PNG customer in case of a dis-connection.* ***Further, since the amount collected as interest-free refundable security deposit shall exist as a liability in the books***

[6] Source: DIAL

of accounts of the entity, the same shall not be reduced from the total capital employed while determining the network tariff (emphasis supplied)."[7]

b. "The reasonable rate of return shall be the rate of return on capital employed equal to fourteen percent post-tax considering the rate of return on long-term risk-free Government securities and the need to incentivize investments in creation of CGD infrastructure"

c. Other factors to consider from the CGD guidelines:

i. PNGRB guidelines regulates tariff for CGD networks, which **applies directly to end-users.** PNGRB allows the security deposits provided by end users to be invested in the business and earn return on such investments, whereas in case of DIAL, security deposits have been availed from lessees of NTA, who are not the end users.

ii. **Demand risks are less for a CGD network** as compared with traffic risk at an airport. Additionally, tariffs for CGD networks are for an essential commodity.

iii. Guidelines issued by PNGRB are one of the **most recent** guidelines in the Infrastructure sector in India and should have considered learnings from other regulated sectors.

2.6.2 *Port Sector:* Tariff Authority for Major Ports (TAMP) sets tariff following the Cost plus Return on Capital Employed approach. Capital Employed is calculated by adding Net Fixed Assets and Working Capital. TAMP does not consider the source of funding for each project while calculating the return. Additionally, the guidelines do not state that while calculating Capital Employed for tariff setting, lease deposits, if any, would not be considered. Relevant extract from the regulation are stated below:

a. "Return will be allowed on Capital Employed (ROCE), both for Major Port Trusts and Private Terminal Operators, at the same pre-tax rate, fixed in accordance with the Capital Asset Pricing Model (CAPM)."

b. "Capital Employed will comprise Net Fixed Assets (Gross Block minus Depreciation minus Works in Progress) plus Working Capital[8]"

2.6.3 *Refer Annexure 1 for detailed case studies.*

2.7 **Conclusion:** The Authority has proposed to provide zero returns on capitalized airport asset funded through RSD. However, it is evident that there is an opportunity cost associated with RSD in terms of the forgone lease rentals. Also, lenders have treated the RSD funding as part of promoter's contribution (quasi-equity), therefore, RSD utilised to fund the capex is expected to have risk inherent

[7] Source: Petroleum and Natural Gas Regulatory Board (Determination of Network Tariff for City or Local Natural Gas Distribution Networks and Compression Charge for CNG) Regulations, 2008, point 2, Attachment 3 to Schedule A

[8] Source: Notification issued by TAMP with G.No 39, dated 31 March 2005

to that associated with equity. Additionally, there are examples from other infrastructure sectors where regulator provides return on the capital employed by the Concessionaire and does not consider the cost of funds while calculating tariff.

3 Hypothetical Regulatory Asset Base (HRAB)

3.1 **AERA's observations on duplicated manpower cost:** In the consultation paper, AERA has observed following points with regard to HRAB:

a. "*With respect to the issue of considering sustainable operating and maintenance costs… no such guidance is provided in the SSA…"*

b. Further, the Authority has also quoted "Principle 5, Schedule 1 of the SSA – Economic Efficiency" *"…Further in respect of regulation of Aeronautical Services the approach to pricing regulation should encourage economic efficiency and only allow efficient costs to be recovered through pricing,* ***subject to acceptance of imposed constraints such as the arrangements in the first three years for operation support from AAI****"* Based on the quote, the Authority has stated that "*…there appears to be no warrant in the SSA to exclude the manpower cost of DIAL staff…"*

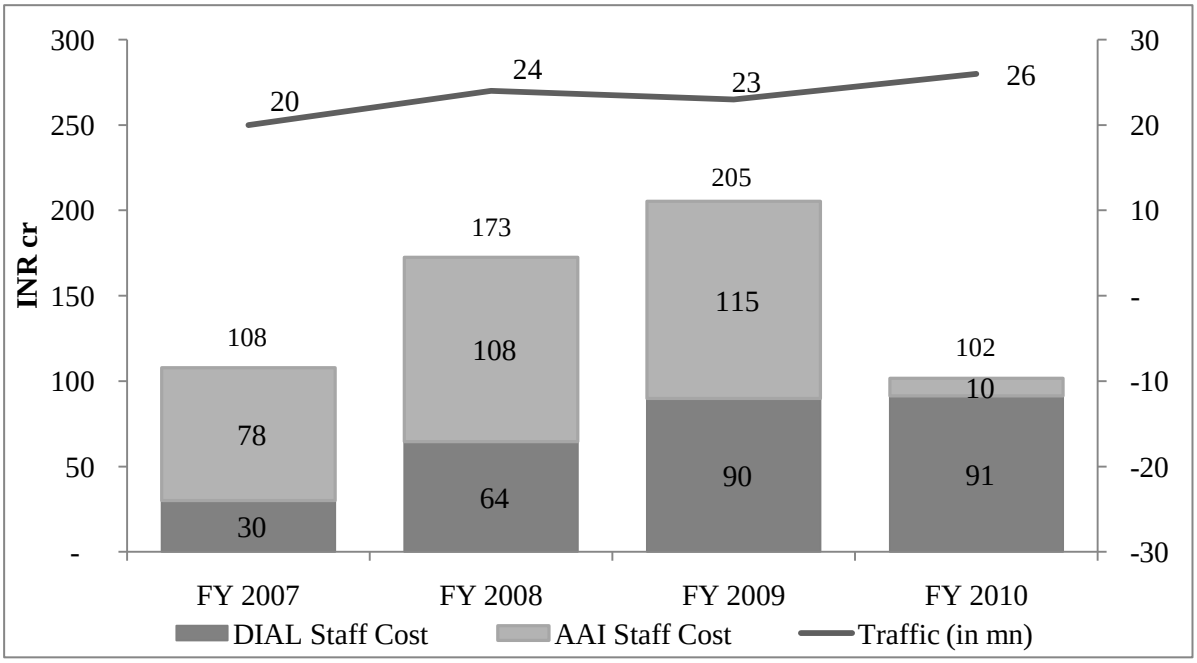
3.2 ***Logical reasoning:*** *Apparent intent of the SSA and its implications*

3.2.1 As per Chapter VI of OMDA, AAI had to provide operational support, through General Employees, to DIAL during three years after the Effective Date. With respect to this, DIAL had to bear the operational support cost (OSC) including manpower cost of AAI staff related to IGI, Airport.

3.2.2 Therefore, it appears that the ***apparent intent*** behind including the extra cost incurred due to such imposed constraints as part of Principle 5, Schedule 1 of the SSA was to *enable and safeguard* the private developer, while determination of tariff based on economic efficiency, against the uncertainties and duplication of cost as a result of such constraints.

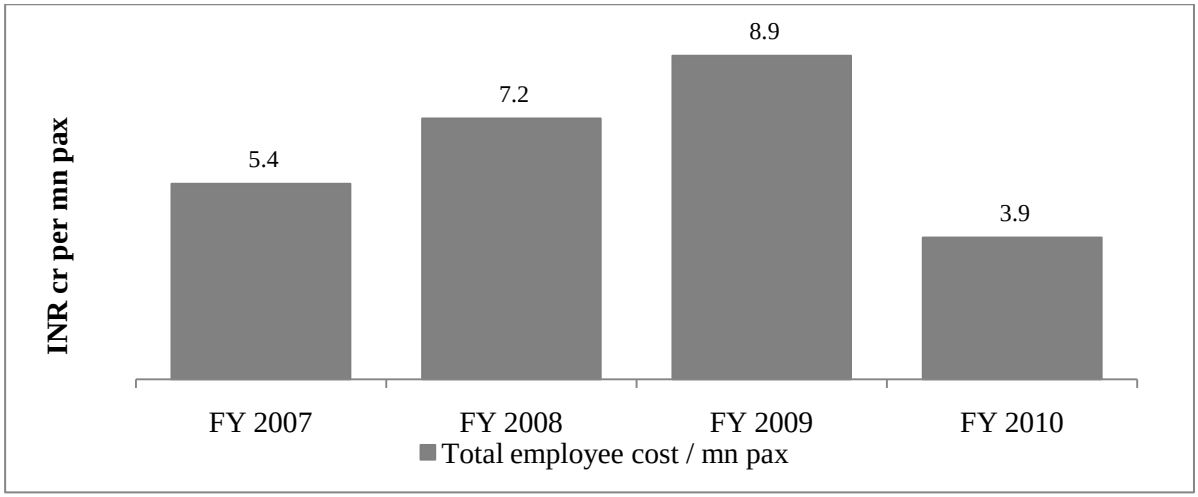
3.2.3 Graph 1 below presents the breakup of manpower in terms of manpower cost of AAI and manpower cost of DIAL. It can be observed that during the operation support period (OSP), financial years (FY) 2007, 2008 & 2009, DIAL has slowly ramped up its manpower. Manpower cost is the highest in FY2009, which is the last year of operation support period. In FY2009, in addition to AAI' manpower, DIAL's manpower was in full force because it had to take full charge of the operation of the airport from the next FY.

Graph 1: IGI Airport – Breakup of Total manpower cost (including aeronautical & non aeronautical) compared with total passenger traffic[9]



It can also be observed from the graph that the real reason for growth in ***total*** manpower cost for IGI Airport was not the growth in traffic, but ***duplication*** of manpower. Graph 2 demonstrates this point more clearly that total personnel cost per million passenger was highest in FY 2009.

Graph 2: Total manpower cost (including aeronautical & non aeronautical) per million passengers[10]



[9] Source: DIAL's Annual reports
[10] Source: DIAL's Annual report and Minutes of Stakeholder Consultation Meeting held on 18.01.2012

3.2.4 It can be inferred from the above two graphs that:

a. Duplication of manpower cost was maximum in FY2009

b. Total manpower cost per million passengers was highest in FY2009

3.2.5 Since the regulatory period is starting from FY2010, entire expenditure for FY2009, including duplicated manpower cost has been considered while assessing the value of HRAB. From the above chart, it is evident that this duplicated cost is not a recurring cost. There is reduction in manpower cost from the FY2010 because of termination of OSP. The additional manpower cost was incurred only during the OSP. Determining HRAB considering entire duplicated expenditure, when this duplication was at the maximum, does not seem to be appropriate, since it is clearly a one-off cost recognised under the SSA

3.3 ***AERA's treatment of Cargo revenue:*** In its review of cargo revenues, AERA has mentioned:

"However, it is noted that DIAL was, for the part of 2009-10, providing cargo services on its own before the concessionaire Celebi Delhi Cargo Terminal Management India Pvt. Ltd., took over these activities. ***Consequently, the revenue received by DIAL from the cargo services during the part period of 2009-10 (when DIAL themselves were providing the services) may be treated as aeronautical revenue.*** *Further, DIAL continues to provide cargo screening services at the concessioned out Cargo Terminals. The revenue and costs relating to cargo screening would, therefore, also need to be treated as aeronautical"*

However, the Authority has considered entire cargo revenue as non aeronautical revenue while determining HRAB. AERA has mentioned:

"It is observed that solely the Hypothetical Asset Base is to be determined in line with the SSA provisions as there is no provision in this regard in the Act. As already indicated in para 61 above, the Authority proposes to take the following approach towards determination of tariffs for aeronautical services provided by DIAL – i.e. be guided by provisions of the SSA read with the provisions of OMDA and other agreements as far as these are consistent with provisions of the Act; and wherever possible, have recourse to principles of tariff determination contained in its Airport Order and Guidelines. As per the Schedule 6 of the OMDA, Cargo handling and Cargo Terminals are ***—Non Aeronautical services****. Further, as per the Schedule 1 of the SSA (refer para 176 above), the book value of —Aeronautical Assets in the books of the JVC and —…. prevailing tariff and the revenues, operation and maintenance cost, corporate tax pertaining to* ***Aeronautical Services*** *at the Airport….. shall be considered for computation of hypothetical RAB."*

3.3.1 As per OMDA Schedule 6, Cargo handling and Cargo terminals are non aeronautical services.

3.3.2 As per 'The Airports Economic Regulatory Authority of India Act, 2008', -

"*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 –

(vi) The concession offered by the Central Government in any agreement or memorandum of understanding or otherwise"

3.3.3 The different approaches used by the Authority for the treatment of the same revenue under the same tariff determination mechanism are not in line with principles of consistency. It is expected that unless warranted by strong reasoning, the approach followed in determining the components of tariff regulation mechanism would remain consistent for the same component. Further, the treatment of cargo revenue as aeronautical is not in line with the principles of OMDA.

3.4 **Conclusion:** Duplication of manpower is maximum in FY2009 because it is the last full financial year in the OSP. Also, duplication of manpower cost is not a recurring cost. For the purpose of calculation of HRAB, only the sustainable manpower cost, i.e. the manpower cost related to AAI staff may be considered. Additionally, a consistent approach may be adopted for treating of cargo revenue.

4 Return on Equity – Case study from Power Sector

4.1 ***AERA's observation:*** In the consultation paper, AERA has benchmarked the Return on Equity (ROE) for airport sector with other infrastructure sectors including power sector. AERA has mentioned:

"Central Electricity Regulatory Commission (CERC), in its Terms and Conditions of Tariff Regulations for 2009-14 issued on 20.01.2009, vide regulation 15, computes the RoE at the base rate of 15.5% in the manner indicated therein. The Authority, has noted that in its regulatory framework the Corporate Tax is being allowed as a cost pass through and the RoE on CAPM.

It is understood that State Electricity Regulatory Commissions normally consider 16% as cost of equity in respect of distribution companies."

4.2 As per CERC guidelines, tariff for supply of electricity comprises of capacity charge comprising of Annual Fixed Cost and energy charge. Relevant extract is as below:

"The tariff for supply of electricity from a thermal generating station shall comprise two parts, namely, capacity charge (for recovery of annual fixed cost consisting of the components specified to in regulation 14) and energy charge (for recovery of primary fuel cost and limestone cost where applicable)."[11]

4.3 Following comprises of Annual Fixed Cost of a generating or a transmission system:

a. Return on equity;
b. Interest on loan capital;
c. Depreciation;
d. Interest on working capital;
e. Operation and maintenance expenses;
f. Cost of secondary fuel oil (for coal-based and lignite fired generating stations only);
g. Special allowance in lieu of R&M or separate compensation allowance, wherever applicable.

4.4 **Method of calculating return:** Return on equity is calculated on the basis of the base rate multiplied by Equity. Relevant extracts are produced below:

"Return on equity shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up as per clause (3) of this regulation:

Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline

Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

[11] Source: Notification issued by CERC dated 19 January 2009

Rate of pre-tax return on equity = Base rate / (1-t)
Where t is the applicable tax rate in accordance with clause (3) of this regulation."

As per CERC guidelines, post tax return on equity of 16% is available for projects which have commissioned on or after 1 April 2009 and are completed within time line.

4.5 In case of power sector, it has been observed that actual return available to an equity investor is more than 16% because the equity invested is not depreciated while calculating return. It has been illustrated with a simple example:

a. Equity investment of INR 1000 crore in a power project is expected to yield the following returns:

Parameter	1st year	10th year	20th year	30th year
Equity investment	(1,000)			
Y-o-y return		160	160	160
Depreciation on equity component		34	34	34
Cash flows for equity	(1000)	194	194	194
EIRR				**19.33%**

Note: For the sake of brevity, only 4 years have been represented in the table above. However, similar approach has been adopted for entire 30 years

b. Equity investment of INR 1000 crore in an airport project is expected to yield the following returns:

Parameter	1st year	10th year	20th year	30th year
Closing RAB for equity contribution	1000	690	345	0
Y-o-y return	0	113	58	3
Depreciation on equity component		34	34	34
Cash flows for equity	(1000)	147	92	37
EIRR				**15.65%**

Note: For the sake of brevity, only 4 years have been represented in the table above. However, similar approach has been adopted for entire 30 years

4.6 **Ownership of Assets:** Assets, including land, are owned by the private developer in case of power sector. At the end of life of the power plant, private developer can sell these assets, including land, at the market value. This is expected to increase the returns to equity investor.

4.7 In case of airports no such upside would be available to a private developer. Developer has been granted only the limited rights as part of OMDA. Assets, excluding NTA, would be transferred to AAI at the zero value at the end of 60th year. NTA does not include return on sale of land.

4.8 **Conclusion:** Even though the CERC guidelines state that the post tax return of 16% would be allowed to the private investor in power sector, the actual returns available to the equity investor in power sector are expected to be higher than 16%.

5 Annexure – 1

Case Study: Compressed Natural Gas & Natural Gas

5.1 Gujarat Gas' Balance Sheet

Treatment of such deposits by Gujarat Gas: Gujarat Gas has outstanding customer deposits of INR 203 crore in FY10 (INR 151 crore in FY09) in comparison to the cash and bank balance of INR 4.8 crore in FY 10 (INR 7 crore in FY09). It is evident from the above, that Gujarat Gas would have invested the amount received from security deposit in the business.

BALANCE SHEET AS AT DECEMBER 31, 2010

	Schedule	Rs. in million	As at 31-12-2010 Rs. in million	As at 31-12-2009 Rs. in million
SOURCES OF FUNDS				
SHAREHOLDER'S FUNDS				
Share Capital	1	400.50		400.50
Stock Options Outstanding Account	2	37.96		21.29
Reserves and Surplus	3	7,911.61		7,123.63
			8,350.07	7,545.42
DEFERRED TAX LIABILITY (Net)			718.52	604.86
(Refer Notes 12 and 29 on Schedule 19)				
DEPOSITS				
(Refer Note 20 on Schedule 19)				
From Customers		2,034.81		1,514.81
From GAIL (India) Limited		38.69		38.69
			2,073.50	1,553.50
TOTAL			11,142.09	9,703.78
APPLICATION OF FUNDS				
FIXED ASSETS	4			
Gross Block		9,669.54		8,580.93
Less : Depreciation		3,181.42		2,686.46
Less : Impairment Loss		29.37		34.63
		6,458.75		5,859.84
Less : Lease Terminal Adjustment Account		118.86		118.86
Net Block		6,339.89		5,740.98
Capital work in progress		780.23		865.73
Capital Inventory		517.68		489.96
			7,637.80	7,096.67
INVESTMENTS	5		5,348.74	4,121.54
AMOUNT RECOVERABLE FROM ESOP TRUST			343.02	243.00
(Refer Note 26 on Schedule 19)				
CURRENT ASSETS, LOANS AND ADVANCES				
Inventories	6	105.91		110.92
Lease Receivables	7	72.97		99.45
Sundry Debtors	8	1,411.17		1,138.98
Cash and Bank Balances	9	48.59		72.16
Loans and Advances	10	156.89		266.22
		1,795.53		1,687.73
LESS: CURRENT LIABILITIES AND PROVISIONS	11			
Current Liabilities		2,076.67		2,116.65
Provisions		1,906.33		1,329.40
		3,983.00		3,446.05
NET CURRENT ASSETS			(2,187.47)	(1,758.32)
MISCELLANEOUS EXPENDITURE	12		-	0.89
(To the extent not written off or adjusted)				
TOTAL			11,142.09	9,703.78
Significant Accounting Policies and Notes to Accounts	19			

24. Deposits from customers have been considered as a source of long term funds since the same are refundable only on termination/modification of the gas sale agreement.

5.2 Indraprastha Gas Limited (IGL) Balance Sheet

BALANCE SHEET AS AT MARCH 31, 2011

PARTICULARS	Schedule Reference	As at 31.03.2011 (Rs. Lakhs)	As at 31.03.2010 (Rs. Lakhs)
SOURCES OF FUNDS			
SHAREHOLDERS' FUND			
Share capital	1	14,000.02	14,000.02
Reserves and surplus	2	86,386.19	68,544.94
		100,386.21	82,544.96
LOAN FUNDS	3		
Secured loans		30,215.46	-
Unsecured loans		4,434.28	-
		34,649.74	-
DEFERRED TAX LIABILITY	4	4,076.87	2,381.46
DEPOSIT FROM CUSTOMERS		11,680.18	5,522.25
(Refer Note 6 of Schedule 17)		150,793.00	90,448.67
APPLICATION OF FUNDS			
FIXED ASSETS (At cost)	5		
Gross block		171,604.53	110,529.80
Less: Accumulated depreciation		55,659.62	45,389.03
Net block		115,944.91	65,140.77
Capital work in progress (Includes capital advances and capital inventory)		34,231.22	18,261.76
		150,176.13	83,402.53

Treatment of such deposits by IGL

6. Deposits from customers of natural gas, refundable on termination/alteration of the gas sales agreements, are considered as long term funds.

OPINION

ON

TREATMENT OF REFUNDABLE SECURITY DEPOSIT

FOR

DELHI INTERNATIONAL AIRPORT LIMITED

February 14, 2012

By:

KALYPTO RISK TECHNOLOGIES Pvt. Ltd.

(A Subsidiary of Credit Analysis and Research Ltd.)

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DISCLOSURES

- The report has been sponsored by the DIAL.

ABOUT US

Kalypto Risk Technologies Private Limited

Kalypto Risk Technologies Limited is a subsidiary of Credit Analysis & Research Limited, the second largest rating agency in India. The company is involved is providing risk modelling and measurement solutions primarily to the banking industry and advisory services.

Credit Analysis & REsearch Ltd.

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ABBREVIATIONS

- AAI – Airport Authority of India
- AERA – Airport Economic Regulatory Authority
- CP 32 – Consultation Paper 32/2011-12
- DA – Development Agreement
- DF – Development Fee
- DIAL – Delhi International Airport Private Limited
- LLD – Land Lease Deed
- MoCA– Ministry of Civil Aviation
- OMDA – Operations, Management and Development Agreement
- SHA – Shareholder's Agreement
- SSA – State Support Agreement

CONTENTS

INTRODUCTION

Delhi International Airport Private Limited (DIAL) is a joint venture consortium (JVC) of the GMR Group (54 per cent), Airports Authority of India (AAI) (26 per cent), Fraport AG & Eraman Malaysia (10 per cent each). GMR is the lead member of the consortium; Fraport AG is the airport operator, Eraman Malaysia - the retail advisors.

Kalypto Risk Technologies Limited (Kalypto) is a subsidiary of Credit Analysis & Research Limited (CARE). Kalypto is involved in providing risk modelling and measurement solutions primarily to the banking industry and advisory services.

DIAL has approached Kalypto to provide an opinion on the treatment of Refundable Security Deposits (RSD), whether it can be classified as 'quasi equity'.

Scope and Limitations

The scope of the report is as specified below:

1. To provide an opinion on whether RSD against sub-leased land can qualify as 'quasi equity'.

This report is based on a desk-based research and the financial, economic and market data used are based primarily on publically available information and on information provided by DIAL, it's officers to Kalytpo and the accuracy and authenticity of the same has not been verified by Kalypto. **Apart from the interaction with DIAL officials and a senior official in the Ministry of Civil Aviation (MoCA), Kalypto has not interacted with any other stake holders and so also the regulator Airport Economic Regulatory Authority of India (AERA).**

The opinion provided in the report is specifically in relation to DIAL and cannot be used in any other case as a reference.

This is a one-time assessment, and neither Kalypto, nor its affiliates are responsible for updating this report.

Neither the report nor its contents may be used for any other purpose without prior written consent of Kalypto.

EXECUTIVE SUMMARY

DIAL has approached Kalypto to provide an

- To provide an opinion on the treatment on RSD, whether the same can be treated as 'quasi equity'.

Opinion on treatment of RSD

As per the concession, out of total land of 5,000 acres provided for the project on long-term lease, DIAL was allowed to develop 5 per cent of land for commercial exploitation and asset developed on the same would be classified as non-transfer assets.

DIAL has sub-leased about 45 acres of land and received Rs. 14.7 billion of refundable, non-interest bearing RSD which it used towards funding of the project.

Considering various features such as long tenure, no fixed committed outgo and opportunity cost associated with RSD, the amount mobilised through RSD exhibits equity like features and as such in our view qualifies to be treated as quasi equity in the liability structure of DIAL.

BACKGROUND

- AERA was established by the Government of India (GoI) vide its notification dated May 12, 2009.

- AERA is an autonomous body set up by an Act of Parliament. The functions of AERA include; fixing, reviewing and approving tariff structure for the aeronautical services and users' fees which may be levied by the service providers for airport development and monitoring prescribed performance standards relating to quality, continuity and reliability of service.

- Provisions regarding Tariff and Regulation have been made in Chapter XII of Operations, Management and Development Agreement (OMDA) and clause 3.1 read with Schedule 1 of the State Support Agreement (SSA).
- DIAL submitted a proposal for revision of tariffs for aeronautical services at Indira Gandhi International (IGI) Airport, New Delhi, for the Authority's consideration and approval on 20th June 2011.
- Along with the proposal, considerations/assumptions made for preparing the proposal for determination of tariffs for aeronautical services have been submitted. These include:

  a. The principles used for the current filing for revision of tariffs for aeronautical services;

  b. The project cost considered in the current filing and the calculation of Regulatory Asset Base (RAB);

  c. The means of finance and calculation of Weighted Average Cost of Capital (WACC);

  d. The forecasts of operation and maintenance expenses and rationale for the same; and

  e. The forecasts of non-aeronautical revenues and rationale for the same.

- Pursuant to the aforesaid submission, a series of discussions/meetings/presentations have been held (during the period June to November, 2011) on the proposal including discussions in respect of the financial model developed by DIAL for this purpose.

- AERA has issued a consultation paper in this regard (CP- No. 32/2011-12) 'Determination of Aeronautical Tariff – IGI Airport, New Delhi. The authority has invited written comments on the proposals made latest by February 15, 2012.

- Against this background DIAL has approached Kalypto to provide an opinion on the treatment on RSD, whether the same can be treated as 'quasi equity'.

- The opinion presented in the report is for the first regulatory period. The first regulatory period implies the 5-year period from the commencement of the fourth year after the Effective Date

(3rd May 2006) as per the OMDA. The same as per the CP-32/2011-12 has, for operational convenience, been adjusted to the nearest financial year i.e. period from 1st April 2009 to 31st March 2014.

OVERVIEW OF INDIAN AVIATION INDUSTRY

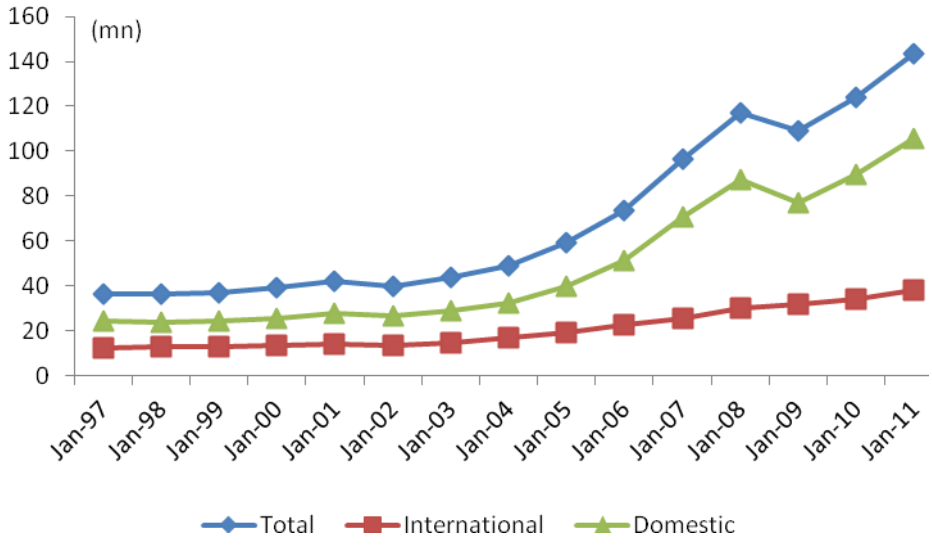
India has been one of the fastest growing economies in the world with an average GDP of 7.7 per cent in the last decade. Infrastructure creation has to be at a much higher rate to sustain a robust GDP growth rate. Strengthening of transportation sector is a key element of national infrastructure. Aviation sector has been one of the prime movers for economic growth and an important segment of employment generation.

Indian aviation sector has transformed itself with the open sky policy of the GoI which has allured many national and international players. Indian aviation sector is one of the fastest growing aviation sectors world-wide. Major drivers for the growth of aviation sector in India have been the entry of low-cost carriers, supporting government policies, higher disposable incomes, increased tourism and increased cargo movement. In order to improve the quality and capacity of the airports government has roped in private players which have resulted in the privatisation of the Hyderabad, Bangalore, Delhi and Mumbai airports.

Passenger Growth

Over the last decade it has been observed that air traffic has grown at 1.6x the rate of GDP growth. The domestic passenger traffic has grown at an impressive 15.7 per cent Compounded Annual Growth Rate (CAGR) for the last five years while international passenger traffic has been growing at CAGR of 11.1 per cent.

Trend in Passenger growth

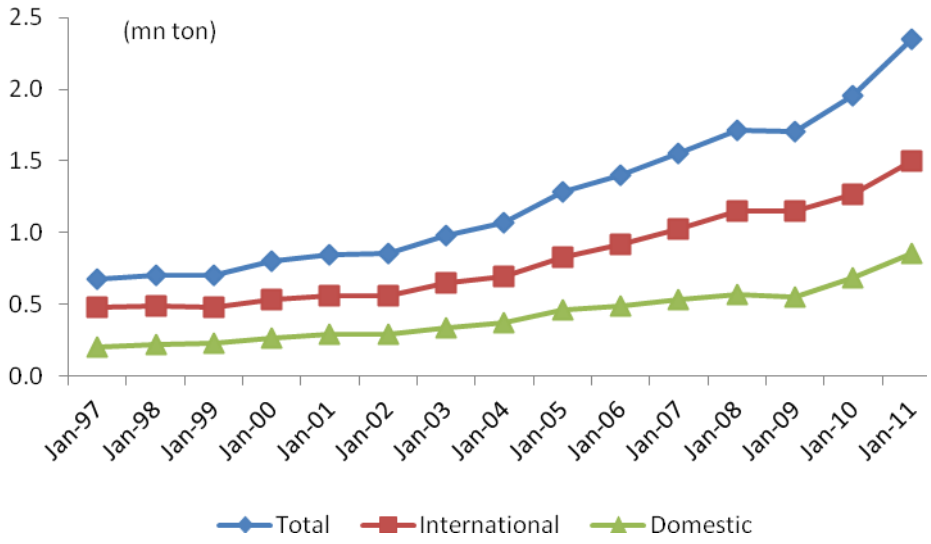


Source: Directorate General of Civil Aviation (DGCA)

Cargo movement growth

Air Cargo Traffic grew at a CAGR of 10.8 per cent in the last five years period of 2005-06 to 2010-11. Though there was a dip in the growth in the year 2008-09, the growth revived and the Air Cargo Traffic is expected to grow at a robust pace over the next few years. This would require creation of additional cargo capacity. As on 31st December, 2009 there were only seven cargo aircraft in India compared to 100 in China. India contributes a little over 1 per cent of the world air cargo traffic.

Trend in Cargo movement



Source: DGCA

Development of non-metropolitan airports

The GoI is also considering modernizing and developing the non-aeronautical (i.e. terminal and city) side of at least 35 non-metropolitan airports through a joint venture route with the private sector. While the AAI will undertake and retain control over all aeronautical (air-side) development works, the city-side development such as hotels, malls and other entertainment centres would be undertaken through private sector participation.

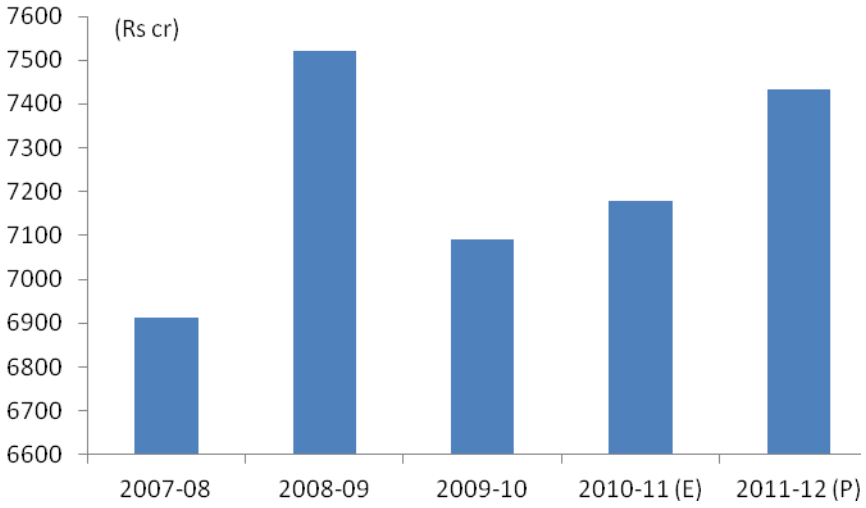
Opportunities – Vision 2020

The Vision-2020 document prepared by the Ministry of Civil Aviation (MoCA) is an assessment of the overall outlook of the sector in 2020. As per the Vision-2020, the growth of aviation sector has potential to absorb upto USD 120 billion of investment. Fleet size of commercial airlines sector is expected to be approximately 1,000 aircraft, domestic passenger numbers could reach 150-180 million, air cargo movement is expected to reach the level of 9 million tonnes and the sector is estimated to have the potential to generate 3 million jobs by 2020.

Investment in the Airport Sector

Over the years, the airport infrastructure has failed to keep pace with the air traffic growth in the country. Taking into account the huge growth potential in air traffic in the future, up-gradation/modernization of the existing airport and building new airports has become imperative. In the Eleventh Five Year Plan (2007-2012), GoI had set a target of spending about Rs. 30,968 crore in aviation sector which has been revised upward to Rs. 36,138 crore in the Mid Term Appraisal Plan.

Trend in planned spending in Airport sector



Source: AAI

Policy Initiatives

The following policy and regulatory frameworks are being initiated / already initiated in the airport sector to ensure time-bound creation of world-class airports in India.

- 100 per cent Foreign Direct Investment (FDI) is permissible for existing airports; Foreign Investment Promotion Board (FIPB) approval required for FDI beyond 74 per cent.
- 100 per cent FDI under automatic route is permissible for Greenfield airports.
- 49 per cent FDI is permissible in domestic airlines under the automatic route, but not by foreign airline companies.
- 100 per cent equity ownership by Non Resident Indians is permitted.
- 100 per cent tax exemption for airport projects for a period of 10 years.
- 'Open Sky' Policy of the Government and rapid air traffic growth have resulted in the entry of several new privately-owned airlines and increased frequency/flights for international airlines.
- A Model Concession Agreement was developed for standardizing and simplifying the Public Private Participation (PPP) transactions for airports, on the analogy of the highways sector.

- Upgrading of the ATC services at the airports. Issues relating to customs, immigration and security are also being resolved in a manner that enhances the efficiency of airport usage.
- A comprehensive Civil Aviation Policy is in the process of finalization covering different areas of the aviation sector. India has entered into bilateral Air Services Agreement with 104 countries.

OPINION ON TREATMENT OF RSD

DIAL was incorporated as a JVC to operate IGI, Airport and is promoted by the GMR led Consortium owning 74 per cent and AAI owning 26 per cent shareholding in the JVC. DIAL had taken over the operation of the IGI, Airport from AAI in May 2006. DIAL has the concession to exclusively operate IGI, Airport at Delhi for 30 years starting May 2006 onwards, which is extendable by another 30 years.
As part of the project, the company had to carry out the expansion and modernization of airport in phases, the timings of which will depend on the traffic growth, the Phase I of the project was to enhance the passenger handling capacity of the airport to 34 million passengers per annum and was targeted for completion by June 2010. It involved up-gradation of airport's existing infrastructure, construction of a new terminal building and a new runway.

As per the bid, DIAL has to give out about 46 per cent of revenue to AAI. Along with the airport development, DIAL also received right to develop the land (250 acres) as a hospitality district.

Tariff

As a part of tariff principles defined under SSA, Target Revenue would be determined as per formula defined in SSA. 30 per cent of the non-aeronautical revenues will be used to subsidize the revenues to be recovered from aeronautical activities. However it is to be noted that the above non aeronautical revenue used for subsidizing does not include revenue realization from land (about 250 acres of land was given on lease to DIAL out of which 45 acres is already been sub leased by DIAL).

As far as traffic volume risk is concerned, upto 5 per cent variation from base projections known as traffic band the entire risk would be borne by DIAL and beyond that DIAL would bear risk for 50 per cent of variation.

Project cost

The estimated cost of Phase I was Rs. 89.75 billion, which was to be funded by equity of Rs. 12.0 billion, long-tenure debt of Rs 49.86 billion (including external commercial borrowings (ECB) of USD 350 million), interest-free deposits of Rs. 27.39 billion to be raised against a portion of land available for commercial development and balance through internal accruals. With regards to the lease deposits, following the slowdown in the real estate industry, the targeted lease deposits were revised downward from Rs. 27.39 billion to Rs. 9.12 billion. The balance Rs. 18.27 billion have been funded by a bridge loan, securitized against the receivables of Airport Development Fee (ADF) which was allowed from March 2009 onwards for 36 months period. The cost further escalated to Rs. 12.57 billion and same has been funded with additional equity, security deposit and ADF (the Regulator has increased the tenure for collection of ADF upto May 2014). Details of means of finance are given below:

Particulars	Rs. Billion
Equity	12.0
Additional Equity	12.5
Internal Accruals	0.5
Refundable Security Deposit (RSD)	14.7
Rupee Term Loan	36.5
External Commercial Borrowings (ECB)	16.2
Additional Debt	1.0
Airport Development Fee (ADF)	35.2
Total Funds	**128.6**

The phase I expansion was completed as per the schedule in June 2010. At present DIAL has filed multiyear tariff proposal for the period 2009-10 to 2013-14 with Regulator AERA. AERA has come out with consultation paper with its comments on various components of tariff proposal and invited stakeholders' comments for the same.

Quasi Equity

As per OMDA, DIAL was provided about 5,000 acres of land on long-term lease for the development and expansion of IGI Airport. Out of this 5 per cent of land was allowed to be developed for commercial exploitation and asset developed on the same would be classified as non-transfer assets. DIAL has sub-leased about 45 acres of land to 13 different entities and received Rs. 14.7 billion of refundable, non-interest bearing RSD which it used towards funding of the project.

The issue in question is 'what return should be permitted on these RSD while working out cost of capital?'When assessing the equity weighting to apply to any instrument, the key question is 'how closely does the instrument replicate the key features of equity capital?' such as:

1. Capital should be sufficiently permanent so that it is available to maintain cash and absorb losses when needed.
2. In an event of bankruptcy, debt-holders have priority in recovery of their loans, while equity-holders are relegated to a residual claim on the assets.
3. Dividend payments on equity shares are made at company's discretion: there is no fixed requirement to do so that could lead to default and bankruptcy if dividend were cut or eliminated.

The amount raised through RSD is for the tenure of entire concession and does not have any committed fixed out go (non-interest bearing). Further the lenders of DIAL have also considered funding through RSD as part of equity while stipulating their covenant requirements. Also the funds raised through RSD

has opportunity cost involved as same are mobilised by DIAL from sub leasing the land given for monetisation purpose and would have earned some return if invested in any other venture.

In light of these facts, the amount mobilised through RSD exhibits equity like features and as such qualifies for being treated as quasi equity and thus being eligible for close to equity returns.

KEY TERMS

Single Till - Under the single till mechanism the entire benefit from the non-aeronautical segment is utilised in subsidizing the operations from the aeronautical segment.

Dual Till - Under the dual till mechanism both the aeronautical & non-aeronautical revenues are completely different and the entire upsides from the non-aeronautical vertical are captured by the Airport operator.

Hybrid Till - Under the hybrid till, a part of benefits from non-aeronautical segment is utilised in subsidising the operations of aeronautical segment, however some part of upsides from the non-aeronautical segment will belong to the airport operator. The percentage will vary from airport to airport depending on the concession agreement – DIAL & Mumbai International Airport Private Limited fall under this mechanism where 30 per cent of non-aeronautical revenues are utilised in subsidising the aeronautical operations.

Airport Development Fees (ADF) - ADF is a mode of charging fee to every departing passenger for supporting the construction & development of the airport.

User Development Fees (UDF) - UDF is a mode of levying a charge on every departing passenger for supporting the regular daily operations and is approved by the regulator to meet the shortfall from other sources of revenue

Passenger Service Fees – shall mean the fees charged per embarking passenger at the airport.

Aeronautical Assets – shall mean those assets which are necessary or required for performance of aeronautical services at the airport and such other assets as DIAL procures in accordance with the provisions of the Project Agreements for in relation to, provision of any reserved activities and shall specifically include all land, property and structures thereon acquired or leased during the term.

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

- Provision of flight operation assistance and crew support system
- Ensuring the safe secure operation of the airport, excluding national security interest
- The movement and parking of aircraft and control facilities
- General maintenance and upkeep of the airport
- The maintenance facilities and the control of them and hangar of aircraft
- Flight information display screens

- Rescue and fire-fighting services
- Management and administration of personnel employed at the airport
- The movement of staff and passengers and their inter-change between all modes of transport at the airport
- Operation and maintenance of passenger boarding and disembarking systems including vehicles to perform remote boarding
- Any other services deemed to be necessary for the safe and efficient operation of the airport.

Aeronautical Charges – The charges which will be levied at the airport by the JVC for the provision of aeronautical services along with consequent recovery of the costs relating to Aeronautical Services

Non Aeronautical Assets – shall mean all assets required or necessary for the performance of non-aeronautical services at the airport.

Non - Aeronautical Services – shall mean the following facilities and services

Part I

- Aircraft cleaning services
- Airline lounges
- Cargo handling
- Cargo terminal
- General aviation services (other than those used for commercial air transport services ferrying passengers or cargo or a combination of both)
- Ground handling services
- Hangars
- Heavy maintenance services for aircrafts
- Observation terrace

Part II

- Banks/ATMs
- Bureaux de change
- Business centre
- Conference centre
- Duty-free sales
- Flight catering services
- Freight consolidators
- General retail shops

- Hotels and motels
- Hotel reservation services
- Line maintenance services
- Locker rentals
- Logistic centres
- Messenger services
- Porter services
- Restaurants/bars
- Special assistance services
- Tourist information services
- Travel agencies
- Vehicle fuelling services
- Vehicle rentals
- Vehicle parking
- Vending machines
- Warehouses
- Welcoming services

Transfer Assets – shall mean the following types of assets

- Aeronautical Assets
- Non- Aeronautical Assets

Non –Transfer Assets – shall mean all assets required or necessary for the performance of non-aeronautical services as listed in Part II of schedule determining non-aeronautical services hereof as located at the airport site.

LIST OF SOURCES

- Operations, Management and Development Agreement between AAI and DIAL dated, 4th April, 2006.
- State Support Agreement in relation to the Modernisation and Restructuring of the Delhi Airport between The President of India on behalf of GoI and DIAL dated, 26th April 2006.
- Shareholder's Agreement between AAI, DIAL, GMR Infrastructure Ltd., GMR Energy Ltd., GVL Investment Pvt. Ltd., Fraport AG Frankfurt Airport Services Worldwide, Malaysia Airports (Mauritius) Pvt. Ltd., and India Development Fund dated 4th April 2006.
- Lease Deed between AAI and DIAL, dated 25th April, 2006.
- Consultation paper by AERA (CP-No. 32/2011-12) on Determination of Aeronautical Tariff in respect of IGI Airport, New Delhi for the 1st Regulatory Period (01.04.2009 – 31.03.2014) dated, 3rd January, 2012.

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Yashwant Bhave *M.P.A.(Harvard) I.A.S.*
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Ex-Chairperson, Airports Economic Regulatory Authority of India (AERA), New Delhi
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Dated July 25, 2020

Sub: DIAL: Methodology of Applicability of Base Airport Charges in terms of Clause 2 of Schedule 6 of the State Support Agreement

1. Background:

1.1. DIAL (hereinafter Querist) has requested me to offer an opinion on matters of true import and meaning of certain provisions of SSA (between DIAL and Central Government). Stated very briefly, Querist is a Private Limited Company incorporated under the provisions of Companies Act, 1956, having its registered office at New Udaan Bhawan, Opposite Terminal-3, Indira Gandhi International Airport, New Delhi-110037. The Querist has been awarded the rights of operating, maintaining, developing, designing, constructing, upgrading, modernising, financing and managing the Indira Gandhi Airport, New Delhi ("IGI Airport") under the Operation, Management and Development Agreement dated 04.04.2006 ("OMDA") signed between the Airports Authority of India ("AAI") and the Querist. Hence the relevant project documents are:

1.1.a. Operation, Management and Development Agreement dated 04.04.2006 ("**OMDA**")

1.1.b. SSA

1.1.c. State Government Support Agreement dated 26.04.2006 ("**SGSA**")

1.1.d. Lease Deed dated 25.04.2006 granting lease of the entire airport premises and appurtenant land ("**Lease Deed**")

Additionally, the following documents are germane for proper understanding and interpretation of the issues with respect to the contract documents and AERA's regulatory framework that impinges on BAC:

1.1.e. Assessment of the regulatory philosophy of Airports Economic Regulatory Authority of India (AERA) World bank document No. 70160[1]

1.1.f. TDSAT's order dated 23rd April 2018 in DIAL's case

1.2. In terms of the Project Documents, DIAL undertook various developmental activities and accordingly the IGI Airport has undergone a major makeover in the first phase of master plan

[1] http://documents1.worldbank.org/curated/en/963021468284121679/pdf/701600ESW0P1230ersion022060110clear.pdf Document Date: 2011/06/22

leading to creation of substantial new infrastructure. The entire IGI Airport has been redone at a cost upward of Rs. 12,000 crores with new runway, new integrated terminal building to cater to domestic and international passengers with state-of-the-art public facilities such as Metro connectivity, Multi-Level Car Parking etc.

1.3. In consideration of the DIAL's undertaking its obligations under the Project Documents, the Government of India has given a sovereign assurance to the DIAL to provide support to it in terms of the SSA. One such assurance by the Government of India has been set out in Clause 3.1.2 of the SSA which states as under:

BAC: Relevant provisions of the SSA and Schedule 6 are reproduced below for ease of referencing:

3.1 Airport Economic Regulatory Authority

3.1.1 GOl's intention is to establish an independent airport economic regulatory authority (the "Economic Regulatory Authority"), which will be responsible for certain aspects of regulation (including regulation of Aeronautical Charges) of certain airports in India. GOI agrees to use reasonable efforts to have the Economic Regulatory Authority established and operating within two (2) years from the Effective Date. GO! further confirms that, subject to Applicable Law, it shall make reasonable endeavours to procure that the Economic Regulatory Authority shall regulate and set! re-set Aeronautical Charges, in accordance with the broad principles set out in Schedule 1 appended hereto. Provided however, the Upfront Fee and the Annual Fee paid / payable by the JVC to AAl under the OMDA shall not be included as part of costs for provision of Aeronautical Services and no pass-through would be available in relation to the same.

3.1.2 The Aeronautical Charges for any year during the Term shall be calculated in accordance with Schedule 6 appended hereto. For abundant caution, it is expressly clarified that the Aeronautical Charges as set forth in Schedule 6 will not be negotiated post bid after the selection of the Successful Bidder and will not be altered by the JVC under any circumstances.

3.1.3 GOI confirms that till such time as the Economic Regulatory Authority commences regulating Aeronautical Charges, the same shall be approved by Gol in accordance with the broad principles set out in Schedule 1 appended hereto.

1.4. Schedule 1 concerns with Principles of Tariff Determination and is germane to the issue of BAC as well as that of the overall framework agreed to between DIAL and GOI. Schedule 6 is referred to in the SSA 3.1.2. The relevant portions of both Schedule 1 and Schedule 6 are reproduced below:

Schedule 1

PRINCIPLES OF TARIFF DETERMINATION

Background

If despite all reasonable efforts of the GOI, AERA is not in place by the time required to commence the first regulatory review, the Ministry of Civil Aviation will continue to undertake the role of approving aero tariff, user charges, etc.

Principles:

In undertaking its role, AERA will (subject to Applicable Law) observe the following principles:

1. *Incentives Based:* The *JVC* will be provided with appropriate incentives to operate in an efficient manner, optimising operating cost, maximising revenue and undertaking investment in an efficient, effective and timely manner and to this end will utilise a price cap methodology as per this Agreement.
2. *Commercial:* In setting the price cap, AERA will have regard to the need for the *JVC* to generate sufficient revenue to cover efficient operating costs, obtain the return of capital over its economic life and achieve a reasonable return on investment commensurate with the risk involved.
3. *Transparency:* The approach to economic regulation will be fully documented and available to all stakeholders, with the Airports and key stakeholders able to make submissions to AERA and with all decisions fully documented and explained.
4. *Consistency:* Pricing decisions in each regulatory review period will be undertaken according to a consistent approach in terms of underlying principles.
5. *Economic Efficiency:* Price regulation should only occur in areas where monopoly power is exercised and not where a competitive or contestable market operates and so should apply only to Aeronautical Services. Further in respect to regulation of Aeronautical Services the approach to pricing regulation should encourage economic efficiency and only allow efficient costs to be recovered through pricing, subject to acceptance of imposed constraints such as the arrangements in the first three years for operations support from AAL

Schedule 6:

AERONAUTICAL CHARGES

Aeronautical Charges, for the purposes of this Agreement, shall be determined in the manner as set out hereunder:

1. The existing AAI airport charges (as set out in Schedule 8 appended hereto) ("Base Airport Charges") will continue for a period of two (2) years from the Effective Date and in the event the JVC duly completes and commissions the Mandatory Capital Projects required to be completed during the first two (2) years from the Effective Date, a nominal increase of ten (10) percent over the Base Airport Charges shall be allowed for the purposes of calculating Aeronautical Charges for the duration of the third (3rd) Year after the Effective Date ("Incentive"). It is hereby expressly clarified that in the event JVC does not complete and commission, by the end of the second (2nd) year from the Effective Date, the Mandatory Capital Projects required to be completed and commissioned, the Incentive shall not be available to the JVC for purposes of calculating Aeronautical Charges for the third (3rd) year after the Effective Date.
2. From the commencement of the fourth (4th) year after the Effective Date and for every year thereafter for the remainder of the Term, Economic Regulatory Authority/ GOI (as the case may

be) will set the Aeronautical Charges in accordance with Clause 3.1.1 read with Schedule 1 appended to the Agreement, subject always to the condition that, at the least, a permitted nominal increase of ten (10) percent of the Base Airport Charges will be available to the JVC for the purpose of calculating Aeronautical Charges in any year after the commencement of the fourth year and for the remainder of the Term.

3. For abundant caution, it is hereby expressly clarified that in the event AAI increases the airport charges (as available on the AAI website www.airportsindia.org anytime during the first two (2) years from the Effective Date, such increase shall not be considered for revising calculating the Aeronautical Charges chargeable by the JVC.

1.5. Existing AAI airport charges (as set out in Schedule 8) pertain to charges for Landing, Housing Parking, X-Ray Baggage and Passenger Service Fees:

1.6. The following things are worth noting. First, according to clause 1 of Schedule 1, AERA should follow "incentive based" regulatory approach. This means that after projecting the various elements of expenditure as well as parameters that would generate revenue, it needed to provide the airport operator with appropriate incentives to operate in an efficient manner, optimising operating cost, maximising revenue and undertaking investment in an efficient, effective and timely manner and to this end will utilise a price cap methodology as per this Agreement.

1.7. Two most important elements of expenses are Operating and Maintenance expenditure (OPEX), Interest costs on debts and the most important element of generating revenue is the traffic forecast. So is the case with Non-Aero revenue. Reasonable estimates of all these parameters need to be made and once tariff is fixed, the airport operator will then have the freedom to optimise these elements so as to " operate in an efficient manner, optimising operating cost, maximising revenue".

1.8. Other similar regulatory regimes undertake elaborate studies on these parameters. The Civil Aviation Authority of UK (CAA, that is the counterpart of AERA in UK) commissions studies on traffic volume, OPEX, interest costs, NAR etc. Based on these and CAA's own assessments as well as consultations, the numbers are frozen, and the price cap determined (what is called the yield per passenger). Any upside or downside is on the account of the airport operator. This is the "incentive-based regulation" that is also envisaged in Schedule 1 of the SSA. As will be seen from para 1.11 below, the World Bank had also commented on this aspect. It is noted that in the Consultation Paper for the Third Control Period NO: 15/2020-21, issued on 9th June 2020, AERA has undertaken independent studies on five issues like (i) Independent Study on Allocation of Assets between Aeronautical and Non-Aeronautical Assets, (ii)Independent Study on Efficient Operation and Maintenance Costs, (iii) Independent Study on analysis of Capital Expenditure on Expansion of IGIA, (iv) Independent Study on Determination of Cost of Equity (v) Independent Study on Opportunity Cost of RSD

1.9. It follows that once say, traffic projections are made, the airport operator should have the incentive to increase the same so that he can retain the upside. Conversely, he will also be responsible for the downside should the traffic decrease (except for a completely unforeseen and unexpected event like the corona epidemic, not necessarily a force majeure (though that also is debatable), where the GOI (that signed the SSA) itself has banned or prohibited the flow of traffic in an airport in the larger public interest.

1.10. The concept of *truing up* that has been adopted by AERA is basically a cost-plus formula. It was in part dictated by the apprehension that should the initial projections of AERA were to prove (obviously after the vent, by hindsight) unduly conservative, the airport operator would be seen to have reaped unintended increased profits that may be construed as "windfall gain" to him and AERA will be held responsible. AERA could be blamed for not performing proper due diligence for arriving at the various projections Worse, AERA may be liable to be held to have consciously under projected the concerned parameters. Though this would auto correct itself over successive control periods (the base of a particular control period would be the realised values of the parameters in the previous one), in a particular period AERA could be liable to be held responsible. The principle of truing up is neutral to both the airport operator and the users and no one can be said to have gained at the expense of the other. For example, the traffic, interest costs and OPEX were all trued up on actuals. AERA had promulgated its framework of regulatory approach and it was reasonable to follow the same, though it may not have been aligned to say the "incentive based" regulation envisaged under SSA.

1.11. **World Bank's Assessment**: In fact, during the initial period of establishing AERA's regulatory framework, the Finance Ministry had tasked the World Bank to comment on AERA's regulatory approach. The World Bank, after extensive deliberations with world experts as well as AERA, published its report No. 70160 "Assessment of the regulatory philosophy of Airports Economic Regulatory Authority of India (AERA) Peter Forsyth, Monash University & Hans-Martin Niemeier, University of Applied Sciences Bremen[2]. Both Peter Forsyth and Hans-Martin Niemeier are world recognised authorities on airport regulation. Their findings are worth noting. While commending the quality and approach of AERA in the framework, these authorities suggest a roadmap of going forward (from the second control period onwards) Their observations are most germane and portions relevant to our discussion are extracted below:

[2] https://documents.worldbank.org/en/publication/documents-reports/documentdetail/963021468284121679/assessment-of-the-regulatory-philosophy-of-airports-economic-regulatory-authority-of-india-aera Document Date: 2011/06/22

While the Authority is clearly heading in the right direction, there remain a number of important conceptual and technical issues which we recommend to be taken up either, with the price cap for first regulatory period, or at a later price cap review in the near future. Good regulatory systems learn from their past experience and adjust to new challenges. In that respect it is important to strengthen further the incentives for cost and allocative efficiency, to reduce the costs of regulation and to rely on threats to reregulate and to encourage competition if possible. ***Our main concern is that the current price cap regulation has still too many elements of traditional cost-based regulation****. (Emphasis added) We therefore recommend reforming the current concept further towards incentive regulation in the second period….*

The current structure of the regulation is still very much cost based. This is compatible with good incentives for cost reduction for the first regulatory period but only the first. ***Incentives for cost reduction will only be achieved if airports are permitted to keep profits for the whole of the period.***

1.12. It is also worth mentioning that over time, many of the tenets outlined by the two experts of the World Bank were given effect to. For instance, as regards contracts already entered, AERA stipulated that for DIAL and MIAL, it will follow contractual 30% hybrid till though for other airports it will follow single till. Later, AERA, after considering the New Aviation Policy moved away from single till to 30% hybrid till. Similarly, AERA, after gaining experience for about four years, had tried to make a kind of "benchmarking" (as was also referred to by the World Bank experts in terms of publishing a consultation paper no. 05/2014-15 dated 14th June 2014 on " *Normative Approach* to Building Blocks in Economic Regulation of Major Airports" for various items of the regulatory building blocks (inter alia pertaining to debt to equity ratio, space allocation between aero and non-aero activities, yardstick for capital cost of terminal building etc) . Later, AERA issued Order No. 07/2016-17 dated 13.06.2016 normatively benchmarking one such building blocks viz. the cost for terminal building, runway, taxiway etc.

1.13. Shortly stated, AERA's regulatory approach of economic regulation of airports that was tilted towards cost-plus approach (especially with the "true up mechanism") and not towards an "incentive based" principle that was indicated in Schedule 1 of the SSA, could be said to have been in order in the commencement of the regulatory regime in the first control period. The framework of AERA was regarded to validly operate (except where expressly excepted, to wit the 30% hybrid for DIAL and MIAL).

1.14. **Ratio of TDSAT's order**: At that time, the TDSAT judgement had not been delivered. TELECOM DISPUTES SETTLEMENT & APPELLATE TRIBUNAL (TDSAT) disposed a clutch of appeals from various petitioners against AERA's Tariff Determination order viz "First Tariff Order dated 20.04.2012". The petitioners were Federation of Indian Airlines (AERA Appeal No.6 of 2012), Delhi International Airport Ltd.(DIAL)- AERA Appeal No.10 of 2012 With I.A No.5 of 2015, M.A.

No.235 of 2017), Lufthansa German Airlines & Ors (AERA Appeal No.11 of 2012). This order effectively stipulates that the covenants of the agreements should be followed in tariff determination. Its order (Para 31) clearly states that " *AERA is required to respect rights/concessions flowing from lawful agreements/ instruments/ directives of Central Government on policy matters".* ((This order has not been challenged in the Supreme Court by any of the parties, so can be taken as final and settled law and interpretation). Hence, the regulatory approach in DIAL (as well as MIAL) will now have to yield to the contractual stipulations. It is against this backdrop that the concept of truing up as well as BAC will have to be viewed.

1.15. The matter regarding provisions in the various agreements/concessions vis-à-vis provisions of the AERA Act have also been specifically dealt with by TDSAT. TDSAT has outlined the Brief History, (Para 6, 7 and 8 of the TDSAT Order) Paras 31-36 outline TDSAT's arguments for respecting the contractual agreements in this behalf:

> *6. ……However, the need for more developed airports and high investment appears to have led to formation of Government of India's new Policy on Airport Infrastructure, 2002.*
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> *7. In this Policy of 2002, it was noticed that such projects involve large elements of sunk costs, a long gestation period and highly uncertain returns on investment on account of several assumptions. Hence, for the reasons of bridging the gap in the resources and also to bring in greater efficiency in management of airports, the participation of private parties (including foreign ones) was deemed imperative. Hence, the Government decided to take all possible steps to encourage such participation….*
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> *8. Section 2 begins with the phraseology – "Definitions – In this Act**, unless the context otherwise requires**, ……."(emphasis supplied by TDSAT itself in the order). Therefore, the context can be used to find out the true scope and meaning of words and phrases defined under Section 2.*
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> *31. The issue, though a minor one, with respect to inter se precedence of OMDA and SSA, needs to be answered in a simple manner by pointing out that both the agreements are essentially parts and parcel of a composite whole aiming to secure a common purpose, viz., to attain the purpose of Policy on Airport Infrastructure and promote creation of world class infrastructure, at least at major airports of the country. Both the agreements clearly have the approval and concurrence of the Central Government either directly through the MOCA or through AAI, an instrumentality of the Government of India. Whatever concessions have been offered under these two agreements, they deserve consideration by AERA in a judicious, fair and transparent manner. It does not really matter whether the power of such consideration flows from sub-clause (vi) or sub-clause (vii) of Section 13(1)(a) of the Act. In exercise of this power, AERA is required to respect rights/concessions flowing from lawful agreements/instruments/directives of Central Government on policy matters.*
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> *34. A general criticism has been made on behalf of DIAL that AERA has contravened the law of the land by failing to maintain a balance between rights of DIAL arising from contracts such as OMDA and SSA and power of AERA flowing from Section 13 of the Act to determine*

tariff from time to time. This criticism can be appreciated only in respect of concrete facts related to decisions which are subject matter of specific criticism and challenge. However, a legal principle discernible from several judgments cited at the bar and enumerated later, clearly shows that all persons or authorities have to respect contractual rights recognizable under law. But this dictum is not absolute and cannot be stretched so as to require a statutory body to act contrary to the relevant statute under which it is constituted or to act contrary to specific provisions in an applicable statute. If there is a direct and clear conflict, a statutory authority has no option but to act in terms of the statute by holding that the contractual right claimed by a party must be deemed to have been made irrelevant by necessary implication. In cases where there is explicit provision empowering the statutory authority to ignore certain existing rights then the task becomes easier and such explicit provision has to be given full effect.

36. The fact that Central Government has laid down the Policy to attract private and public participation and investment to have world class airport facilities at the major airports is not in dispute. Unless there be anything contrary in the Act, the Policy needs to be viewed as a promise so that the ultimate bidders and investors may feel secure and confident of a fair treatment after they have agreed to make or made heavy investments. The concession offered through any Agreement or Memorandum of Understanding or even otherwise needs to be viewed accordingly….

*… **the provision in sub-clause (vi) (of AERA Act) does require a relatively more serious and careful consideration by the Authority. As indicated above, the claim based on this clause and on concessions offered by the Central Government can be disregarded only on limited counts. Since a contractual right/claim has the backing of law, it deserves clear respect.** **(**Emphasis added)*

1.16. Finally, in its findings in Para 119, TDSAT summarised that (Para numbers refer to the paragraphs in the TDSAT's order):

(i) In exercise of powers under Section 13 of the Act, AERA is required to respect rights/concessions etc. (See Para 31).

(ii) Contractual rights can be voided only on the basis of explicit statutory provisions or implications from statutory provisions permitting no other option (See Paras 34 and 36)

1.17. **Incentive based regulatory approach**: AERA could therefore adopt an incentive-based approach in the future economic regulation of airports. This will truly incentivised the airport operator and in terms of Schedule 1, viz. "*JVC* will be provided with appropriate incentives to operate in an efficient manner, optimising operating cost, maximising revenue and undertaking investment in an efficient, effective and timely manner and to this end will utilise a price cap methodology as per this Agreement"

1.18. **Concept of BAC-available in any year for the term**: As will be seen from the observations in Paras 6, 7 and 36 of the TDSAT's order detailed in para 1.15 above, "*the Policy needs to be viewed as a promise so that the ultimate bidders and investors may feel secure and confident of a*

fair treatment after they have agreed to make or made heavy investments". The provision of the clause regarding BAC is in furtherance of providing a floor to the prospective investors that their rates will not fall below a certain pre-determined level. It is also to be noted that the **BAC refers to the charges and not to revenues**. The floor charges are therefore fixed as per a formula. If and when the floor kicks in a year, the revenues it leads to is not to be taken into account in that year. Simply put, once BAC + 10% sets in, these charges are contractually determined under SSA. These are not determined by AERA. Hence for BAC + 10% charges, the issue of true-up (that pertains to AERA determined charges) does not arise (See also para 4.2 below).

1.19. Moreover, as indicated in Para 8 of the TDSAT's order, the context can be used to find out the true scope and meaning of words and phrases defined under Section 2. Clearly, such a context cannot be post hoc or the regulatory approach of AERA to the extent it militates against the provisions of the SSA, OMDA etc.

1.20. Furthermore, it is necessary to clear the linguistic matter of the wording of the increase of 10%. It is stipulated that "*permitted nominal increase of ten (10) percent of the Base Airport Charges will be available to the JVC for the purpose of calculating Aeronautical Charges in any year after the commencement of the fourth year **and** (emphasis added) for the remainder of the Term"*. As per clause 2 of SSA, "Term" has the meaning as ascribed to in the term in clause 7.1 of SSA. Clause 7.1 states that:

> 7.1 Subject to Clause 2 above, this Agreement shall come into full force and effect from the Effective Date and shall, unless terminated earlier, continue in full force and effect for the entire term of the OMDA **("Term")** and shall be co-terminus with the OMDA. For abundant caution, it is hereby expressly clarified that this Agreement shall terminate automatically with the expiry or early termination of the OMDA.

1.21. OMDA is for a period of thirty years (extendable by another thirty). Hence the phrase "remainder of the term" will have to be construed as for the entire duration of OMDA. Use of the word "and" makes it also clear that the stipulation of 10% increase over BAC will be available to DIAL in any year for the remainder of the term and therefore is not merely a one-time affair.

1.22. It is clear that the contract with DIAL stipulates that as such, what is contemplated in Clause 2 of Schedule 6 of the SSA is a sovereign assurance in the nature of a safety net for DIAL in consideration of the obligations being undertaken by it, which would come into play the moment the Aeronautical Charges as calculated under Schedule 1 of the SSA, for any year would fall below the Base Airport Charges plus 10% thereof as set out in Schedule 8 of the SSA.

1.23. Schedule 6 of the SSA, grants two rights/privileges in favour of DIAL. Clause 1 of Schedule 6 of the SSA provides a one-time 'Incentive' which would be available to DIAL on

completion of Mandatory Capital Projects within a stipulated time. On the other hand, Clause 2 of Schedule 6 of the SSA grants an assurance/vests the DIAL with the right to "at the least, a permitted nominal increase of 10 percent of the Base Airport Charges" which would be available to DIAL for calculation of Aeronautical Charges in **any year** (emphasis added) after the commencement of the fourth year and for the remainder of the Term (which is co-terminus with the OMDA). As such, what is contemplated in Clause 2 of Schedule 6 of the SSA is a sovereign assurance in the nature of a safety net for DIAL in consideration of the obligations being undertaken by it, which would come into play the moment the Aeronautical Charges as calculated under Schedule 1 of the SSA, for any year would fall below the Base Airport Charges plus 10% thereof as set out in Schedule 8 of the SSA.

1.24. To summarise therefore, a bare reading of the relevant provisions makes it evident that the intention of the SSA is that the AERA shall calculate Aeronautical Charges year on year in accordance with the principles laid down in Schedule 1 of SSA but at the same time it shall ensure that the Aeronautical Charges so calculated do not fall below the value of Base Airport Charges with the permitted nominal increase of 10 percent of Base Airport Charges, for any year during the Term. Consequently, if for any year the Aeronautical Charges calculated in accordance with Schedule 1 of the SSA, is less than the Base Airport Charges plus 10% thereof, then DIAL shall be permitted to levy the latter in terms of Clause 2 of Schedule 6 of the SSA. As will be seen from the TDSAT order referred to in paras 1.14 to 1.16 above, the covenants of the SSA will need to be respected and adhered to.

1.25. In terms of Clause 2 of Schedule 6 of the SSA, the Government of India had assured/ undertaken that the calculation of Aeronautical Charges at IGI Airport which would be done in accordance with Schedule 1 of the SSA shall always be subject to, at the least, a permitted nominal increase of 10 percent of Base Airport Charges, in any year, for the remainder of the Term of the SSA (which is co-terminus with the OMDA). Therefore, what is contemplated in Clause 2 of Schedule 6 of the SSA is a sovereign assurance in the nature of a safety net for DIAL in consideration of the obligations being undertaken by it, which would come into play the moment the Aeronautical Charges as calculated under Schedule 1 of the SSA, for any year would fall below the Base Airport Charges plus 10% thereof as set out in Schedule 8 of the SSA.

1.26. Therefore, the intention of the SSA is that the AERA shall calculate Aeronautical Charges year on year in accordance with the principles laid down in Schedule 1 of SSA but at the same time it shall ensure that the Aeronautical Charges so calculated do not fall below the value of Base Airport Charges with the permitted nominal increase of 10 percent of Base Airport Charges, for any year during the Term. Consequently, if for any year the Aeronautical Charges calculated in accordance with Schedule 1 of the SSA, is less than the Base Airport Charges plus 10% thereof, then DIAL shall be permitted to levy the latter in terms of Clause 2 of Schedule 6 of the SSA

1.27. As such, it has been assured in the SSA, that at the very least, for any year, DIAL would be entitled to levy Base Airport Charges (along with the permitted 10% increase) as Aeronautical Charges at the IGI Airport. From the aforementioned discussion, the principles which emerge are as under:

1.27.a. At the time of determination of Aeronautical Charges, AERA is mandated to calculate the same as per the principles enshrined in Schedule 1 of the SSA;

1.27.b. The Aeronautical Charges so arrived at in terms of the calculation under Schedule 1 of the SSA are to be compared with the Base Airport Charges along with permitted nominal increase of 10%;

1.27.c. If on comparing the Aeronautical Charges as calculated under Schedule 1 of the SSA, it is found that the same are lower than the Base Airport Charges with the permitted 10% increase, then DIAL shall be entitled to charging the latter charges.

1.27.d. That for any year, DIAL is entitled to the higher of the two, i.e., Aeronautical Charges calculated under Schedule 1 of the SSA on the one hand and the Base Airport Charges along with 10% increase on the other hand, and the said entitlement is to be determined for each year in the control period, before the beginning thereof. Further, the entitlement of DIAL to either Aeronautical Charges under Schedule 1 or to Base Airport Charges plus 10% thereof shall remain in force for the entire Control Period.

1.27.e. Further, the same exercise would again be carried out by AERA for each year of the control period at the time of determining Aeronautical Charges for the next control period.

1.28. On the basis of the aforementioned understanding, it is seen that at the time of determination of Aeronautical Charges by AERA under Section 13 of the AERA Act, AERA is mandated to calculate Aeronautical Charges as per the principles enshrined in Schedule 1 of the SSA and the Aeronautical Charges so arrived at are to be compared with the Base Airport Charges along with permitted nominal increase of 10%. Further, if on comparing the Aeronautical Charges as calculated under Schedule 1 of the SSA, it is found that the same are lower than the Base Airport Charges with the permitted 10% increase, then DIAL shall be entitled to charging the latter charges. Further, the said comparison is to be done by AERA on a year to year basis and that therefore, the minimum assurance of Base Airport Charges plus 10% thereof should be preserved for each year of the concession term.

2. DIAL on the BAC with respect to AERA's orders for various control periods

2.1. The following paragraphs state the material that has been provided by DIAL to me. DIAL has indicated that ….In view of the foregoing, it is relevant to examine the Order passed by AERA for the determination of Aeronautical Charges for the Second Control Period (01.04.2014 to 31.03.2019) ("**Second Tariff Order**") wherein it has been held as under:

"25.16 The Authority would like to mention that the X-factor of plus96.08% is based on the date of implementation of new tariffs on 01.01.2016 that is, almost one year and nine months into the second Control Period…

Decision No. 22: Regarding the Tariff Structure/Rate Card to be considered for the second Control Period, based on the material before it and its analysis, the Authority has decided:

22.a To determine an X-factor of plus96.08% (with date of implementation of tariff as 01.01.2016) based on its decisions in respect of regulatory building blocks towards determination of aeronautical tariffs for the Second Control Period (01.04.2014 – 31.03.2019) for the IGI Airport, New Delhi.

Order

28.1 In exercise of power conferred by Section 13(1)(a) of the AERA Act, 2008 and based on the above decisions, the Authority hereby determines the aeronautical tariffs to be levied at IGI Airport, New Delhi for the Second Control Period (2014-15 to 2018-19), effective from 01.01.2016 and the rate card so arrived at as of 01.01.2016 upto 31.03.2019 has been attached as Annexure I to the Order. …"

2.2. It is submitted that in the Second Tariff Order the Aeronautical Charges under Schedule 1 of the SSA were calculated for the Second Control Period keeping in mind the implementation date of 01.01.2016. On a comparison of the Aeronautical Charges calculated under Schedule 1 as determined in the Second Tariff Order, with the Base Airport Charges plus 10% thereof, for each year, it has been ascertained that the said Aeronautical Charges under Schedule 1 are lower and therefore, DIAL is entitled to levy Base Airport Charges plus 10% thereof from 01.01.2016. Since, in terms of the Tariff Order for the Second Control Period, the date of implementation of the Aeronautical Charges for calculation under Schedule 1 of the SSA was taken to be 01.01.2016 and the said Aeronautical Charges are lower than Base Airport Charges with the 10% increase, the Base Airport Charges plus 10% should be applicable from 01.01.2016 itself as that is the date on which the Aeronautical Charges have gone below the Base Airport Charges plus 10% thereof.

2.3. With respect to the Order for the Second Tariff Order it is submitted that even though the Control Period for which AERA determines Aeronautical Charges is 5 years, the comparison between Aeronautical Charges as calculated under Schedule 1 of the SSA and Base Airport Charges with a 10% increase, has to be done on a year to year basis in terms of the SSA. Therefore, for the years from 01.01.2016 onwards, the Base Airport Charges plus 10% should become the applicable Aeronautical Charges, whereas from 01.04.2014 to 31.12.2015, the Aeronautical Charges as calculated under Schedule 1 of the SSA should be applicable. It is submitted that it is the aforementioned charges, which should be considered to be the entitlement of DIAL for the Second Control Period regardless of the charges which were being levied by DIAL at the relevant time.

2.4. It is submitted that as opposed to what should have been done in terms of the SSA, while passing its Order No. 30/2018-19 dated 19.11.2018, AERA even after holding that DIAL was contractually entitled to Base Airport Charges plus 10% thereof, in any year of the Term, made the said charges applicable from 01.12.2018 instead of 01.01.2016. In this regard it is also highlighted that in the Consultation Paper published by AERA before passing Order No. 30/2018-19, AERA had proposed that the date on which the minimum charges of Base Airport Charges plus 10% will be available to DIAL would be decided at a later date and that for the present the proposal was to allow DIAL to charge Base Airport Charges plus 10% from 01.07.2018 till the end of the Second Control Period. The part of the said Consultation Paper is as under:

"4.2 Accordingly the Authority proposes the following:

4.2.1 DIAL is entitled to maintain minimum aeronautical charges equivalent to BAC plus 10% of BAC in any year during the term of the concession in terms of its concession. It is proposed that DIAL be allowed to consider the charges as provided in the Schedule 8 of the SSA plus a one-time increase of 10% as the minimum aeronautical charges.

4.2.2 The date on which minimum charges of BAC plus 10% of BAC shall be made available to DIAL will be worked out later while truing up the figures. For the present the Authority proposes to allow DIAL the aeronautical charges equivalent to BAC plus 10% from 1st July 2018 to 31st March 2019……..

4.2.5 The excess amount required by DIAL during the 2nd control period will be calculated separately and adjusted during determination of tariff for the third control period (01.04.2019-31.03.2024)."

2.5. Also, the portion of Order No. 30/2018-19, which is relevant is as under:

"4.4.3 Authority's views on BAOA's views

The Section 13(1)(a)(vi) of the AERA Act provides that the Authority has to consider the concession offered by the Central Government in discharge of its function of tariff determination. The Authority while determining the tariff for DIAL has recognized the importance of the SSA in this regard. The Hon'ble Appellate Tribunal, TDSAT has also emphasized to honor the contractual obligations of the parties, unless there is a complete conflict between the agreement and the statute. The applicability of BAC plus 10% of BAC is governed by the Schedule 6 of the SSA between DIAL and Govt. of India and is therefore required to be considered by the Authority, in case the tariff determined by AERA under Section 13 of the AERA Act falls below the BAC plus 10% of BAC in any year during the term……

4.6.3 Authority's views on FIA Comments

…….Further, the Authority has also evaluated the proposal and is of the view that the rates as given in Order No. 40/2015-16 have fallen below the Base Airport Charges as is evident from the comparison at Para 3.8 and Annexure 4 of the consultation paper. It may be noted that para 2 of Schedule 6 of the SSA says that at any time the airport charges fixed should not

fall below BAC plus 10%. The said para speak about charge/rate and not revenue. So it is felt there is no scope to analyse any other aspect other than a single aspect whether the charges fixed are lower than BAC plus 10% as stated in the SSA (numerical comparison).

The Authority is of the view that the Base Airport Charges is the minimum tariff entitled to DIAL within the terms and provisions in SSA and OMDA. Hence, Authority is of the view that even if the appeal against 2nd Control Period is pending for adjudication, the BAC can be implemented….

5. ORDER

5.1 The Authority has scrutinized the stakeholder's comments and has taken note of the responses provided by DIAL. In terms of Concession granted to DIAL in reference specifically to Schedule 6 of the SSA, DIAL has a contractual right and is entitled to Base Airport Charges (BAC) provided under Schedule 8 of OMDA plus 10% of BAC in any year of the concession term. Accordingly in terms of Section 13(1)(a) of the AERA Act the Authority decides to consider the concession offered in determination of tariff.

5.2 Upon careful consideration of the Materials available on record, the Authority, in exercise of powers conferred upon it by Section 13(1)(a) of the AERA Act, 2008, hereby orders that:

5.2.1 DIAL is entitled to maintain minimum aeronautical charges equivalent to BAC plus 10% of BAC in any year during the term of the concession in terms of the SSA awarded by the Government.

5.2.2. Accordingly, the Authority decides to allow DIAL to charge the rate equivalent to BAC plus 10% of BAC effective from 1st December 2018. The applicable aeronautical charges effective from 1st December 2018 are therefore mentioned at Annexure-1."

2.6. That on a reading of the relevant provisions as well as the observations made by AERA in its Order No.30/2018-19, the decision of AERA to make Base Airport Charges plus 10% thereof applicable from 01.12.2018 is incorrect and contrary to the scheme of the Project Documents. It is submitted that since, the X-factor and the Aeronautical Charges for the Second Control Period were calculated taking the date of 01.01.2016 as the benchmark implementation date and it is these Aeronautical Charges which have been compared with the Base Airport Charges plus 10% thereof to determine whether the Base Airport Charges plus 10% thereof would be applicable or not, the Base Airport Charges plus 10% thereof, having been found to be higher of the two, would be implemented on the same date as on which the Aeronautical Charges would have been implemented had the same been found to be higher in comparison to the Base Airport Charges plus 10% thereof.

2.7. In addition to the decision of AERA to make Base Airport Charges plus 10% thereof applicable from 01.12.2018, the Consultation Paper issued by AERA for determination of

Aeronautical Charges for the Third Control Period (01.04.2019 to 31.03.2024) ("**Consultation Paper**") wherein AERA has once again proposed that the Base Airport Charges plus 10% shall be applicable only from 1.12.2018, also requires consideration. The relevant part of the Consultation Paper is as under:

> *" The tariff order was not implemented from January 1, 2016 till July 7, 2017 which is roughly three and quarter years of the Second Control Period during which the aeronautical charges levied by DIAL were much higher than the tariff applicable as per BAC plus 10%. However DIAL has not only collected these high aeronautical charges but also claimed compensation to the tune of the revenues that would have accrued as per BAC and has asked for the same to be trued up additionally. As per the SSA, BAC plus 10% is the floor revenue to protect the tariffs from falling below such Base Airport Charges and it is not an added revenue stream for true up when the actual aeronautical charges collected by DIAL are much higher than BAC plus 10%.*
>
> *DIAL claiming the BAC for the period from July 7, 2017 till December 1, 2018 along with the revenues collected as per the tariff order for the Second Control Period also lacks merit as the BAC is a revenue floor and not an added revenue stream. DIAL had continued to collect revenues as per the tariff order for the Second Control Period in this intervening period. DIAL's eligibility has to be the difference between the revenues as per BAC plus 10% and the Aggregate Revenue Requirement (ARR) provided to the airport operator, provided such ARR that has been assessed for the relevant period is lower than the revenues collected as per Base Airport Charges. (Actual aeronautical revenues may not be considered for comparison with BAC for the lapsed control periods as the Authority considers only ARR on an NPV basis when the tariff is determined for the next cycle as part of true up exercise)."*

2.8. It is submitted that for the purpose of giving effect to Clause 2 of Schedule 6 of the SSA what is required is a comparison of the Aeronautical Charges calculated in terms of Schedule 1 of the SSA to the Base Airport Charges plus 10% thereof and not that of the revenue therefrom. It has been further contended that once the entitlement of DIAL to charging either Aeronautical Charges under Schedule 1 or charging Base Airport Charges plus 10% for an year has been decided, then the said entitlement remains fixed for all times to come and the same remains unaffected even if there is a change in the actual air traffic or PAX subsequently. As such, once the entitlement to applicable rates is fixed at the beginning of the year, then the revenue which would be earned from such rates is wholly irrelevant for the purpose of AERA in terms of its function under Section 13 of the AERA Act. Hence, there cannot be any true up based on the revenue earned by DIAL on the basis of the rates to which it was found entitled at the beginning of the year.

2.9. As such, for the period from 01.01.2016 till 07.07.2017, AERA has failed to consider the fact that regardless of the Aeronautical Charges which were being collected by DIAL, the entitlement of DIAL for applicability of Base Airport Charges plus 10% thereof would be

01.01.2016, i.e., the date on which the Aeronautical Charges for the Second Control Period were determined under Schedule 1 of the SSA. Further, for the period from 08.07.2017 to 01.12.2018, the Aeronautical Charges as determined under Schedule 1 of the SSA should have been compared with the Base Airport Charges plus 10% thereof, and not the Aggregate Revenue Requirement or the actual revenue collected through levy of Aeronautical Charges determined under Schedule 1 of the SSA to the revenue that could have been collected by levy of Base Airport Charges plus 10% thereof for the relevant period depending on the traffic for the said period. As such, the methodology used by AERA is incorrect and not in terms of the provisions of the SSA.

2.10. In addition to the above, the proposal of AERA with regard to true up of revenue from Base Airport Charges plus 10% is incorrect and without any legal basis. It is submitted that the proposal of AERA to true up revenue which may be 'over recovered' by DIAL in the Third Control Period is also without any contractual or legal basis. It has been submitted that the proposal of AERA to true up the 'over recovered' Base Airport Charges plus 10% thereof is based on the erroneous premise that the total entitlement of DIAL for the Third Control Period is the Target Revenue calculated under Schedule 1 of the SSA and that any amount collected over and above the said amount, is excessive and would therefore have to be trued up in the successive control periods.

2.11. It is submitted that once the Aeronautical Charges determined under Schedule 1 of the SSA have been compared to the Base Airport Charges plus 10% thereof and it has been determined which one of the two is higher and shall therefore, be leviable, the question of the revenue which shall be collected on account of such levy becomes irrelevant. Therefore, once it is found that the Aeronautical Charges under Schedule 1 of the SSA are lower than the Base Airport Charges plus 10% thereof and that the latter would be applicable, then the entitlement of the relevant Control Period becomes the revenue collected by levy of the Base Airport Charges plus 10% and the corresponding revenue becomes the entitlement of DIAL for said Control Period. As such, once the comparison has been made and it has been decided that the Base Airport Charges plus 10% thereof would be levied, the calculation under Schedule 1 of the SSA becomes irrelevant for the said control period and cannot be used as a yardstick to determine the revenue entitlement of DIAL for the control period. Hence, the two systems of arriving at the leviable Aeronautical Charges, i.e., the one under Schedule 1 and the other being the Base Airport Charges plus 10% thereof, are mutually exclusive and independent of each other. Therefore, the moment either one of the Aeronautical Charge systems are adopted, no reference can be made to the other system for any purpose whatsoever.

2.12. Hence, it is submitted that once AERA has reached the conclusion that DIAL is entitled to levy Base Airport Charges plus 10% thereof for the Third Control Period, there is no question of reverting to the calculation under Schedule 1 of the SSA or to say that the entitlement of DIAL is limited to the Target Revenue calculated under Schedule 1 of the SSA. Once it has been proposed that DIAL shall be entitled to levy Base Airport Charges plus 10% thereof for the Third Control Period, the entitlement of DIAL qua revenue to be collected in the Third Control Period shall also stand amended in terms of the same. Also, as long as DIAL levies Aeronautical Charges as per the Base Airport Charges plus 10% thereof, no revenue collected therefrom can be said to be 'over recovered' or excessive in the hands of DIAL. As such, there can be no true-up of the revenue collected by DIAL by levy of Base Airport Charges plus 10% thereof for the Third Control Period and the proposal of AERA in this regard is in derogation of the scheme of the Project Documents.

2.13. In view of the aforementioned background, DIAL has raised the following queries for my consideration:

3. Queries:

3.1. In the Second Control Period, from what date would DIAL be entitled to charge Aeronautical Charges as per Base Airport Charges plus 10%?

3.2. Once the eligibility /entitlement date of base airport charges plus 10% thereon is determined in the second control period, how the excess recovery amount has to be arrived in the second control period from(1-1-16 to 31-12-18) i.e. actual recovery over base airport charges plus 10% thereon or over target revenues?

3.3. Can the Base Airport Charges be trued up as sought to be done by AERA in its Consultation Paper for the Third Control Period?

3.4. Any query which is ancillary to the two queries above.

4. Answers:

I shall now attempt to give a framework for answering the above queries. All references are to the charges for the aeronautical services.

4.1. In the second control period, the airport charges will first need to be determined for the entire five years based on the AERA's regulatory framework that is fully consistent and compliant with the SSA as well as OMDA. In normal course, and as required by SSA Schedule 1, AERA calculates the X factor and this is broken down into different airport charges

4.2. As has been indicated in paras 2.11and 2.12 above, Base Airport Charges will need to be topped up as per clause 2 of Schedule 6 which is what is proposed by AERA in the Consultation Paper for the Third Control Period. (Pl also see para 1.18 above). As is noted in Para Base Airport

Charges plus 10% thereof entitled and proposed for the Third Control period cannot be trued up in the Fourth Control period as has been proposed by AERA (vide para 1.18 above).

4.3. Since the effective date in the second control period is not 1-4-2014 but later, the aggregate revenue (or the X factor) *based on the enhanced airport charges (BAC + 10%)* wherever applicable, will need to be calculated from the effective date till the end of the control period i.e. 31-3-2019. This X factor will then be broken down into different airport charges from the effective date till the end of the second control period.

4.4. If there is any excess recovery in the first control period as well as from 1-4-2014 till the effective date, the same will be clawed back in the second control period from the effective date till the end of the second control period.

4.5. The target revenue in the second control period is based on BAC + 10% (if applicable in any year). So excess recovery amount has to be arrived in the second control period from(1-1-16 to 31-12-18) i.e. actual recovery over base airport charges plus 10% thereon

4.6. As indicated in para 1.17 above, in future control periods (may be from fourth onwards?), AERA could consider incentive based regulation as envisaged in Schedule 1 of the SSA.

The above opinion is given on the basis of factual position and documents provided by the Querist as well as my understanding of these documents based on my work as an economic regulator of the major Airports under AERA and has been given based on materials furnished by the Querist.

Dated July 25, 2020

Yashwant Bhave

I. Background:

DIAL in accordance with section 8.3.5 of OMDA has to review the master plan every 10 (ten) years or at a shorter interval if the traffic growth requires more frequent updates. Accordingly, considering the growth in air traffic, DIAL appointed AECOM a firm of repute in 2015 to develop DIAL's fresh master plan. Pursuant thereto Master Plan prepared by AECOM went through stakeholders' consultation, including review by MoCA and AAI and a revised Master Plan 2016 came into being for IGI Airport. In furtherance of Master Plan 2016, DIAL has undertaken the following development works under Phase 3A to meet the demand and growth rate of traffic at IGI Airport (hereinafter called "**Phase 3A Works**").

Brief description of Phase 3A works are as follows:

- Demolition of existing Terminal 1C (Arrivals) and construction of an expanded Arrival Terminal;
- Modification (including creation of temporary facilities) and Expansion of Terminal 1D (Departures);
- Integration of Departure and Arrival Terminals along with a Node building and Pier with 22 contact stands and 13 bussing gates;
- An expanded and redeveloped aircraft apron serving Terminal 1;
- New parallel taxiway to existing Runway 10/28 along with new rapid exit taxiways (RETs) ;
- Redevelopment of Runway 09/27 along with a parallel Taxiway;
- A new fourth runway (Runway 11L/29R) with Rapid Exit Taxiways (RETs);
- Construction of Dual elevated Eastern Cross Taxiway (ECT) linking the southern and northern parts of the airfield with an underpass at the Radisson Road and a Bridge over the central spine road;
- Various other taxiways/airfield layout improvements;
- Various landside developments with new flyovers;
- Various ancillary/support facility improvements;
- Modifications to the transfer passenger facilities and 7th Check-in Island at Terminal 3; and
- Various enabling works including relocation to new facilities

DIAL held user consultation meeting in December 2017 for Phase 3A and in May 2018 approached AERA for its preliminary review of the estimated cost of works proposed in Phase 3A basis the Major Development Plan, Preliminary design drawings and indicative BoQs & estimated Costing. We understood from AERA that it has appointed M/s KITCO to

assist it in the review of estimates of the project cost of Phase 3A Works for IGI Airport.

AERA conveyed to DIAL the following summary of cost recommendation of KITCO.

Packages	Estimated cost by DIAL	Recommended cost by KITCO
1 - Expansion of Terminal 1	2,513.00	2,431.00
2&4 - Airfield works including 4th runway & Eastern Parallel Cross taxiways	4,681.00	4,320.00
3 - Landside / Connectivity works	366.00	366.00
5 - Modifications to Terminal 3	167.00	167.00
TOTAL	7,727.00	7,284.00
Others	905.00	685.60
GRAND TOTAL	**8,632.00**	**7,969.60**

Authority along with the consultation paper no 15/2020-21 has for the first time shared with DIAL, the KITCO report. Post analyzing the report we believe that various factors specific and unique to IGI Airport which were conveyed to KITCO during various site visits, verbal and written submissions and meetings, have not been given proper and full consideration. Accordingly, those considerations are not reflected in the cost recommended by KITCO above. A point wise submission to these factors are as below:

II. Response to KITCO Report:

The disallowance as proposed by KITCO on the basis of benchmark cost to other private airports or benchmark to smaller AAI Airports. Such benchmarks are not feasible in the context of DIAL as the construction risks that makes construction in an operational airport of the magnitude and scale like IGI Airport a very complex affair, and a prudent contractor price the construction risk in their bids. The reasons why DIAL is unique In terms of project implementation are reiterated below:

A. Operational challenges:

The construction activity has to take place at a running airport already operating near its peak capacity. It is one of busiest airports in the world handling 70Mn plus passengers and ATMs per annum is of the order of 4, 66, 553 Nos. Besides, IGIA falls under highest threat zone and is thus subjected to highest standards of safety and security measures. IGIA also caters to maximum VVIP movements in India which restricts the works during such movements. It also hosts the establishments and infrastructure to cater to the requirements of Forecast. These factors pose challenge to the works and the cost thereof.

1. High Intensity Air side operations

IGI Airport is having high intensity Air side operations where in average daily air traffic movement number is of the order of 1300 per day. Therefore construction of relevant portion of Airside development under Phase 3A has to take place alongside of a fully operational and very busy airport. Below table shows the month wise air traffic data of IGI Airport in the year

2018 & 2019:

S. NO	***Month***	***No. of ATMs in Year-2018***	***No. of ATMs in Year-2019***
1	Jan	39,382	39,625
2	Feb	36,899	35,883
3	Mar	40,970	37,722
4	Apr	40,205	35,499
5	May	41,476	37,565
6	Jun	39,833	37,335
7	Jul	40,385	38,698
8	Aug	40,795	39,577
9	Sep	39,651	39,286
10	Oct	41,522	42,308
11	Nov	38,677	41,337
12	Dec	41,010	41,718
	Total	**4,80,805**	**4,66,553**

DIAL handles Average around 40,000 ATM per month compared to the airports like Cochin 6,000 ATM, Kolkata 13,500 ATMs and Hyderabad 15,000 ATMs. Accordingly, DIAL is the busiest Airport in India and accordingly the contractor appointed to undertake the construction activity at such a busy airport has to account for various operational challenges and time factors while undertaking the works.

2. Low visibility period

There is a distinct Low Visibility Period (LVP) in the National Capital Region which normally starts from the 1st week of the December and goes up to end of February. No. of occurrences of such LVP, its total duration and average daily hours of occurrence are indicated below:

S. NO	*Year*	*Total No of Instances in a year*	*Total No. LVP hours in a year*	*Average No. of hrs. in a day*
1	*2017 – 2018*	*54*	*312 hours 19 minutes*	*6*

2	*2018 – 2019*	*44*	*237 hours 33 minutes*	*5*
3	*2019 – 2020*	*51*	*328 hours 44 minutes*	*6*

During low visibility period, it is essential that the operator maintains utmost safety. In order to maintain a strict safety regime, movement of vehicles other than those permitted for airlines, operation and surveillance purpose are restricted resulting in reduced working time available for construction work. Hence, airside construction of such magnitude as described above requires additional deployment of man power, tools, plant & machinery and vehicles to achieve the target productivity. Such conditions also require additional training for the deployed manpower by the implementing agency/EPC contractor.

3. Higher frequency of VVIP movement:

IGI Airport being situated in the National Capital Region (NCR), there are many VVIP movements and to suit the protocol requirement, no movement is allowed in the airside other than those are of purely operational in nature. Valuable construction time is lost due to mobilization and remobilization.

S. No	***VVIP***	***Movements form 1st Jan'18 to 31st Dec'18 (hrs)***			***Movements form 1st Jan'19 to 31st Dec'19 (hrs)***		
		Dom.	*Int.*	*Total*	*Dom.*	*Int.*	*Total*
1	*VVIP-I*	*70*	*16*	*86*	*26*	*8*	*34*
2	*VVIP-II*	*55*	*12*	*67*	*68*	*12*	*80*
3	*VVIP-III*	*100*	*30*	*130*	*97*	*24*	*121*
4	*VVIP-V*	*2*	*61*	*63*	*2*	*24*	*26*
		Total No. of hrs		***346***	***Total No. of hrs***		***261***

B. Construction challenge:

1. Expansion work at airside is integrated to the operational airside facility:

The airside works under the Phase 3A expansion work is also not a straight forward construction. The entire works are either the redevelopment / modification of existing infrastructure or refurbishment thereof or have a bearing on the operational capabilities of existing infrastructures. Every small portion of airside works, whether new terminal 1, the runway, RET, modification of runway 10/28, construction of Parallel taxiway, Echo-2 taxiway and construction of Apron, airside drainage system, etc. are so complex that each and every piece of work are totally inter connected and hugely inter dependent. As stated earlier to cater to the 1300 ATM per day, we need at least 3 runway systems at a given time. To meet the operation aircraft stand requirement, at a given time there should be at least 33 operating stands available at T1 apron. Construction of Parallel taxiway and its connection to runway 10/28 and to the apron in the domestic side requires sequential construction there by requires both time and deployment of skilled man power, best in class work methodology

along with plant and machinery to achieve the required results of the progress/productivity.

2. Location of fourth runway

Since the under constriction 4th Runway is an inner runway and the existing 3rd Runway 11/29 being an outer Runway and situated between two parallel taxiway systems (TWY-Z & TWY-Y and T), this requires complete modification of existing AGL system on the southern side and re-configuration of existing taxiway/RETs.

Also the under construction 4th Runway being an inner Runway and therefore productivity of the construction work is lower as stoppage of work is more due to taxing / crossing of aircraft between existing taxiway systems to the outer runway (i.e. existing 3rd runway) resulting in an increased requirement of manpower, material and machineries to compensate for loss in productivity. Such complex airside works also require complete modification of the existing drainage system in the airside. All systems cannot be changed simultaneously. The works have to be undertaken in sequence, fully coordinated and in line with the construction of runway and apron without compromising the operations and the standards thereof as outlined in the concession agreement with AAI.

3. Construction challenge in T1D expansion:

With reference to the expansion of the Terminal-1D, demolition of existing arrival terminal, construction of new arrival terminal building and then stich up both the departure terminal and arrival terminal through a common node and pier configuration stretched inside the apron area requires utmost care and deployment of skilled labor in phases to achieve the following:

a. Sequential construction of arrival terminal in parts
b. Expansion of utility in sequence
c. Modification of Terminal 1D including the slab construction
d. Expansion of Terminal 1D and stitching with pier building
e. Relocation of inside facility of Terminal 1D
f. Expansion and relocation of pre-embarkation of check in area
g. Change in bussing gate operation in sequence
h. Interim T1D and Node building inter connection
i. Sequential construction of node building
j. Construction of Apron and Pier in phase manner so that existing operation is no way impacted.
k. Expansion & modification of AGL related power system which are housed besides the terminal building.

The most important aspect under the specialized system is Baggage Handling system.

Though there is no breakup of how the cost reduction of 30 (thirty) Crores against the specialized system has been considered by M/s KITCO, DIAL would like to clarify that Baggage Handling system considered in this project is Individual Carrier System (ICS) which is totally different from the existing system of the running Baggage Handling Systems at Terminal 1D. It must be clearly understood that at any given time, no. of check-in islands should be minimum two. Therefore at any given instance two Baggage Handling systems feeding to two carousels shall be in place along with the other common systems. The challenge will be to ensure operation of existing system and installation of new totally different systems such as

ICS. This remains a big challenge along with Terminal modification from Grid K onwards, which has a strong bearing on the overall ICS installation. Unless and until all these aspects are clearly understood and cost is worked out, such reduction will always be subjective.

The above is captured in our technical specification and was also elucidated to M/s KITCO during their site visits and various discussions and also formed of employer's requirements in the tender document released to seek price quote for the phase 3A works. As these items / challenges are unique to IGI Airport, while evaluating the cost above risk factors must be considered.

It is clearly evident that the report submitted by M/s KITCO has not fully considered the nature of complexity of construction of both terminal and airside works. They have also not considered the cost and risk that goes into construction of Terminal and Airside which require at many instances construction of temporary systems and sub-systems, relocation of existing utility building, stoppage of work due to NGT direction, LVP, VVIP movement, Operational requirement, supporting of minimum terminal and apron requirement and relocation of utility and facilities to carryout main construction in phases.

C. The Current Project cost arrived is a result of price discovery

DIAL had undertaken an ICB (International Competitive Bidding) process for undertaking the phase 3A works on Engineering, Construction and Procurement ("**EPC**") basis on the lump-sum quoted price and pre-qualified four very reputed international construction leaders competing for this prestigious job.

DIAL has as part of the bid documents for the EPC contract have clarified and informed these impediments to the international bidders. However, the bidders being experienced in construction of such complex airports, their evaluation of the risks and accordingly cost involved may be varied/different from our consideration. DIAL in order to create a common understanding had shared an estimated BOQ prepared by DIAL consultant M/s AECOM with all the bidders for their reference and the technical and financial evaluation of the bidders. The meetings were conducted with all bidders to fully apprise them about the project, operational requirements and DIAL's expectations. L&T came out as a L1 bidder and accordingly L&T had been awarded the EPC contract. DIAL had received following quotes (excluding GST):

1. L&T - INR. 8323 cr.
2. IC ICTAS - INR. 8512 cr.
3. TAV - INR. 9289 cr.
4. LIMAK - Not Submitted.

The actual cost arrived for phase 3A works is a result of price discovery through a transparent international competitive bid process and thus has its sanctity to be maintained by all. The cost arrived is based on facts and does not necessarily match exactly with the estimation of DIAL and KITCO, as the costs associated to the risks perceived by each party is different.

D. Summary

M/s KITCO in their cost evaluation, in our opinion, has not at fully and properly considered the enormous complexities explained above while arriving at their cost recommendation, as

evident from its report itself.

Cost tabulation as indicated by M/s KITCO in their table no. 18, Page 64 is indicated below:

Packages	Estimated cost by DIAL	Recommended cost by KITCO	DIAL remarks
1 - Expansion of Terminal 1	2,513.00	2,431.00	Major impact of the construction challenges are on airside works and the terminal, same have not been fully considered. M/s KITCO has disallowed the cost based on the bench marking with other airports which are not fully comparable given the unique and specific situation of IGIA. In view of the complexities and unique nature of Delhi Airport construction explained in the paragraph above, the cost has to be considered specific to DIAL.
2&4 - Airfield works including 4th runway & Eastern Parallel Cross taxiways -	4,681.00**	4,320.00	
3 - Landside / Connectivity works	366.00	366.00	
5 - Modifications to Terminal 3	167.00	167.00	
TOTAL	7,727.00	7,284.00	
Others	905.00	685.60	DIAL had also considered a contingency of 5% due to the unforeseen nature of the challenges and risks involved. M/s KITCO have considered only 3%.
GRAND TOTAL	**8,632.00**	**7,969.60**	

DIAL based on the above observations would like to contest the cost consideration made by the AERA Consultant as follows:

a) **Terminal Cost -** An amount of Rs.2513 crores is proposed by DIAL for Civil works, MEP & Airport systems which has been reworked by M/s KITCO to Rs.2431 cr. The same is inadequate and not acceptable.

b) **Airside Cost -** The costing proposed by DIAL is Rs.4681 crores. Though M/s KITCO stated that they have considered the factors like operational difficulties, constrained material conveyance, Anticipated cost escalation, Design for heavier aircraft (Code F) while evaluating the airfield costing, the consideration towards NGT/pollution related bans, LVP, VVIP movement etc. and especially work process adoption in High Intensity Airside Operation, sequential work, inter-dependency in work, relocation of various

utility which requires especial consideration towards cost development is not evident.

DIAL, is of the view that M/S KITCO in their cost consideration has not given full considerations to the risk factors while developing the cost sheet. Normal way of carrying cost analysis based on standard DSR/CPWD rates would lead to a wrong cost consideration and overlaying specific requirements of each project on such standards becomes a subjective exercise. It is here the need is to rely on discovered cost through bid process, where the underlying factor is the risk assessment by the bidder and value assigned by the bidder to the risks.

c) **Consideration of Contingency Percentage:** It is to reiterate once again that complexity of Phase 3A execution is unique in all respects such as sequencing, modification of existing systems/relocation to cater to new construction, working difficulties with respect LVP, VVIP movement, NGT instructions. Special care with respect to air traffic movement, interface of construction between terminal building, apron, drainage interface within its own construction sequence, movement of construction vehicular traffic, etc. and many other unforeseen interfacing requirements increase the risk of completing the project within the time, cost & quality. For complex project like this standard understanding of project execution contingency is of the order of 10%. We have considered only 5%. It may further be understood that for IGI Airport, DIAL has prepared concept design and accordingly worked out the project cost. M/s KITCO has reduced this contingency factor to 3% most probably as per CPWD guidelines for normal projects, which is not at all advisable for a complex project of such a large scale.

III. Conclusion:

The original estimates submitted to AERA/KITCO were based on preliminary BoQ and estimated per unit cost. The contract for Phase 3A expansion work was awarded on lump sum price and on EPC (Engineering, Procurement and Construction) contract basis post international competitive bidding. The successful EPC bidder i.e. L&T had estimated package wise payment mechanism for the decided lump sum cost.

Accordingly we hereby submit that the project cost now arrived is a result of price discovery done through international tendering process:

- DIAL has followed an exhaustive and transparent International tendering process wherein reputed International Contractors with experience in similar projects had been shortlisted for tendering.
- The exhaustive process of tendering, evaluation, discussion and negotiations followed by DIAL has resulted in the discovery of the reduced than initially tendered EPC cost for the Phase 3A works. The final prices were arrived after rigorous negotiations with the lowest bidder i.e. L&T which had almost 6% lower quoted price than the highest bidder initially.
- The final prices provided by the L2 bidder is around 2.3% higher than the lowest bidder and that provided by the L3 bidder is around 11.3% higher than the lowest bidder. This provides further confirmation that the final award price is reasonable and right price.
- It is an established rule of law that once the price is discovered through competitive bidding process it is sacrosanct and cannot be tampered with.

In view of the above we request the Authority that though we have submitted our observations against the recommendations of KITCO for the reasons stated above, however AERA must consider only the project cost arrived at based on the international competitive bidding and not to consider any reduction in the cost so arrived.

Detailed reply on Summary of estimated costs & Recommended costs - Expansion of Delhi Airport Phase - 3A (Page No.69-72)						
MDP PACKAGE	**S.NO**	**DESCRIPTION**	**COST PROPOSED BY DIAL (Rs. Crore)**	**COST RECOMMENDED BY KITCO (Rs. Crore)**	**DIFFERENCE (Rs. Crore)**	**REMARKS BY DIAL**
	I	**MAIN PACKAGES**				
		PASSENGER TERMINAL BUILDING				
	A	**Civil and Structural works including façade, roofing**	906	879.03	26.97	It is noted that KITCO has adopted most probably the standard costing methodology as per DSR & PWD rates. However, the project has many dimensions such as complex terminal expansion, relocation/modification of infrastructure, construction while is in full operation at landside, terminal side and airside including rock excavation through control blasting, Disposal of rocks in a manner as per standard rules and regulation and therefore the rate consideration by KITCO in the opinion of DIAL while considering the risk involved in constructing such terminal as described in the main body of the letter are not correct. This is reflected also in the competitive bidding for the specific item.
	B	**Finishes & Interior works**	366	366	0	No Comments
		SUB TOTAL- STRUCTURES AND FINISHES	**1,272**	**1245.03**	26.97	
	C	**MEP Systems**				
	(i)	HVAC	185			
	(ii)	Electrical	315			
	(iii)	FF, Detection & suppression systems	20			
	(iv)	Fire alarm system	11			
	(v)	PHE	26			
PACKAGE 1		**SUB TOTAL- MEP SYSTEMS**	558	**533**	**25**	As described in the main body of the letter, since the terminal expansion consists of modification of the existing Terminal1D (Departure terminal). Therefore modification of existing equipment along with installation of new equipment and thereafter integrating them with the old system to come out with one single system which will cater to both the existing system as well as new system. This is the biggest challenge in terms of engineering, procurement of equipment/system which will seemlessly work boh with new and existing system. Therefore the cost mechanism cannot be derived from PWD & DSR rates or obtaining standard quote of supply & installation without understanding the above mentioned complexity of the work from the manufacturer. Further there could be temporaray requirements that need to be catered to during modification which would also add to the overall cost.
	D	**SPECIALISED SYSTEMS**				
	(I)	**Airport Systems**				
	(i)	PBB, GPU, PCA, VDGS				
		Passenger Boarding Bridges	150			
		Visual Docking Guidance System	98			
		GPU- pit connection for remote stands	32			
		PCA- pit connection for remote stands	34			
	(ii)	Screening systems- Passenger Screening systems	34			
	(iii)	Baggage handling systems	111			
	(iv)	Screening systems- Hold Baggage Screening systems	82			
	(v)	Vertical and Horizontal Transportation systems	115			
	(vi)	Automatic tray retrieval	27			
	(II)	**IT Systems**	cost considered under (III)			

		Sub total- specialised systems	683	**653**	**30**	The most important aspect under the specialized system is Baggage Handling system. Though there is no breakup of how the cost reduction of 30Cr against the specialized system has been considered by M/s KITCO, DIAL would like to clarify that Baggage Handling system considered for this project is Individual Carrier System (ICS) which is totally different from the existing conventional belt driven Baggage Handling Systems at Terminal 1D. It must be clearly understood that at any given time, no.of check-in island available should be minimum two numbers out of four. Therefore at any given instance two Baggagage Handling system feeding to two carousals shall be inplace along with the other common systems such Security systems and it's related conveying system. The challenge will be to ensure operation of existing system and installation of new totally different systems such as ICS. This remains a big challenge along with Terminal modification from Grid K1 onwards, which has a strong bearing on the overall ICS installation. Unless and untill all these aspects are clearly understood and cost is driven such reduction will always be arbitary.
		SUB TOTAL -TERMINAL	**2,513**	**2,431**		
		AIRFIELD WORKS				
PACKAGE 1	A	Apron excepting associated AGL works	817	616	201	The most complex works under Phase 3A is the Airside works. Under this, we are constructing a runway which will be Cat IIIB compliant (on both sides). This fourth runway is dividing two sets of parallel taxiways and intersecting many perpendicular runway entry taxiways. From this description one can understand that high intensity runway operation at IGI airport will certainly be impacted unless and until appropriate phasing, modification of existing AGL, modification of existing taxiways, modifcation of existing drainage systems, are carried out. Further, working during LVP & VIP movments, NGT related issues (Intermittent stoppage) etc , arrangement of trained resources, tools and plants, relocation of existing utilities and lastly maintaining overall safety and security of the airside operation are to be taken into consideration with appropriate risk factor. In the event of in appropriate understanding of the above factor, costing of the project will certainly be incorrect and precisely that has happend in this case. This has been further reflected in the Bid submissions and the final price discocvery. In our opinion, such reduction of cost against each of the item of airside works including Eastern Cross Taxiway is therefore totally in-appropriate and not considering appropriate factors of correct costing.
	B	New Runway 11L/29R	281	260.41	20.59	
	C	Taxiways				
	(i)	North side (North Parallel taxiway, connecting taxiways, RETs+ Runway 09-27, Echo- 2 etc)	888	813.86	74.14	
	(ii)	South side (RET S1 & S2, Y5, exit taxiway-1,2,3, S-3, Z2 taxiways etc	236	222.54	13.46	
PACKAGE 2	D	Drainage				
	(i)	North side	558	518.43	39.57	
	(ii)	South side	74	74		
	E	Airfield Ground Lightning for all airside works including Eastern Cross Taxiway	652	652		
	F	Other Associated works like Electric Substation, SRFF, ARFF equipment etc	57	57		
PACKAGE 4	**H**	**EASTERN CROSS TAXIWAY expecting associated AGL works**	1,118	1106	12	
		SUB TOTAL - AIRSIDE	**4,681**	**4,320**		
PACKAGE 3						
		Flyover at northern access road	64	64	0	
		Foot over bridge	1	1	0	
		Flyover at T1 D/T1C	55	55	0	
		Northern Access, Central Spine and other roads etc	133	133	0	
		Roads- T1C & T1D at grade	29	29	0	
		Multi level Car Park	cost considered under (III)			
		Other works like External /Utilities/ Canopy etc	84	84	0	
		LANDSIDE -SUB TOTAL	**366**	**366**	0	
		GRAND TOTAL	**7,560**	**7,117**	443	
PACKAGE 5		**TERMINAL 3 (Transfer areas-I to I,and baggage handling equipment**	167	167		
	I	**TOTAL VALUE OF MAIN PACKAGES**	**7,727**	**7,284**		
	II	**OTHERS**				
	a	Preliminary works including demolition, relocation, enabling, diversions etc- 2%	150	145.7	4.3	
	b	Design Development & Supervision - 4%	309	291.4	17.6	
	c	Permits, Survey, Insurance	30	30	0	
	d	Operational capex	30	0	30	

	e	Contigencies- 3%	386	218.5	167.5	It is needless to repeat once again that complexity of Phase 3A execution is unique in all respects such as sequencing, modification of existing systems/relocation to cater to new construction, working difficulties with respect LVP, VIP movement, NGT instructions. Special care with respect to air traffic movement, interface of construction between terminal building, apron, drainage interface within it's own construction sequence, movement of construction vehicular traffic, etc. and many other unforeseen interfacing requirements increase the risk of completing the project within the time, cost & quality. For complex project like this standard understanding of project execution contingency is of the order of 10%. We have considered of our own only 5%. M/s KITCO has reduced that contingency factor to 3% most probably as per CPWD guidelines for normal projects, which is not at all advisable for a complex project of such a large scale.
					0	
	II	**SUB TOTAL-OTHERS**	**905**	**685.6**	219.4	
		TOTAL (I+II)- excluding financing and interest costs	**8,632**	**7969.6**	662.4	
	Notes	These costs are based on preliminary estimates of works, services and other facilities/ support costs				
	III	**Phase 3A WORKS EXECUTED THROUGH OTHERS (JOINT VENTURES/ CONCESSIONAIRES**				
	a	Information Technology and Associated Systems	140	140	0	
	b	Ground Power and Pre-conditioned Air Units	137			
	c	Multi level car park (underground)	374			
		Total (III)	651			

Notes These costs are based on preliminary estimates of works, services and other facilities/ support costs

Infrastructure Advisory

CRISIL
An S&P Global Company

Delhi International Airport Limited (DIAL)

Estimation of Cost of Equity for DIAL

Final Report

December 2018

Abbreviations

AAI	Airport Authority of India
AERA	Airports Economic Regulatory Authority
APM	Arbitrage Pricing Model
APT	Arbitrage Pricing Theory
BSE	Bombay Stock Exchange
CAPM	Capital Asset Pricing Model
CERC	Central Electricity Regulatory Commission
DIAL	Delhi International Airport Limited
ERP	Equity Risk Premium
IGI	Indira Gandhi International Airport
OMDA	Operations, Management and Development Agreement
TAMP	Tariff Authority on Major Ports

Contents

List of tables

List of figures

1. Introduction

GMR Group was awarded the bid for operating, maintaining, developing, designing, constructing, upgrading, modernising, financing and managing Delhi International Airport. Post selection of the private consortium a special purpose vehicle, namely Delhi International Airport Limited (DIAL), was incorporated on 1st March 2006 with AAI retaining 26% equity stake and balance 74% of equity capital acquired by members of consortia.

OMDA was signed by DIAL whereby the AAI granted to DIAL the exclusive right and authority during the term to undertake some of the functions of AAI being the functions of operations, maintenance, development, design, construction, upgradation, modernizing, finance and management of the IGI Airport and to perform services and activities constituting aeronautical services and non-aeronautical services (but excluding Reserved activities) at the airport.

As per OMDA, the tariff for aeronautical service is to be regulated by independent regulatory with duly consideration of terms & condition mentioned therein. The independent regulator - Airports Economic Regulatory Authority (AERA) came into existence in 2008 by AERA Act, 2008. Under section 15 of the Act, airport operators are required to submit their tariff proposal for regulated services for each control period.

Currently DIAL is under the process of preparing tariff filing application for third control period for which they desire a study on evaluating reasonable Cost of Equity applicable to DIAL based on a scientific approach.

CRISIL Risk and Infrastructure Solutions Limited has undertaken this study, analysed various scientific approaches towards estimation of Cost of Equity (COE) and derived the value of COE for DIAL after careful consideration of various factors impacting this value. The structure of the report is as follows:

Step 1 – Analysis of various methods for COE estimation

Step 2 – Detailed Analysis of CAPM method

Step 3 – Rate of Risk Free Return Estimation

Step 4 – Market Return Estimation

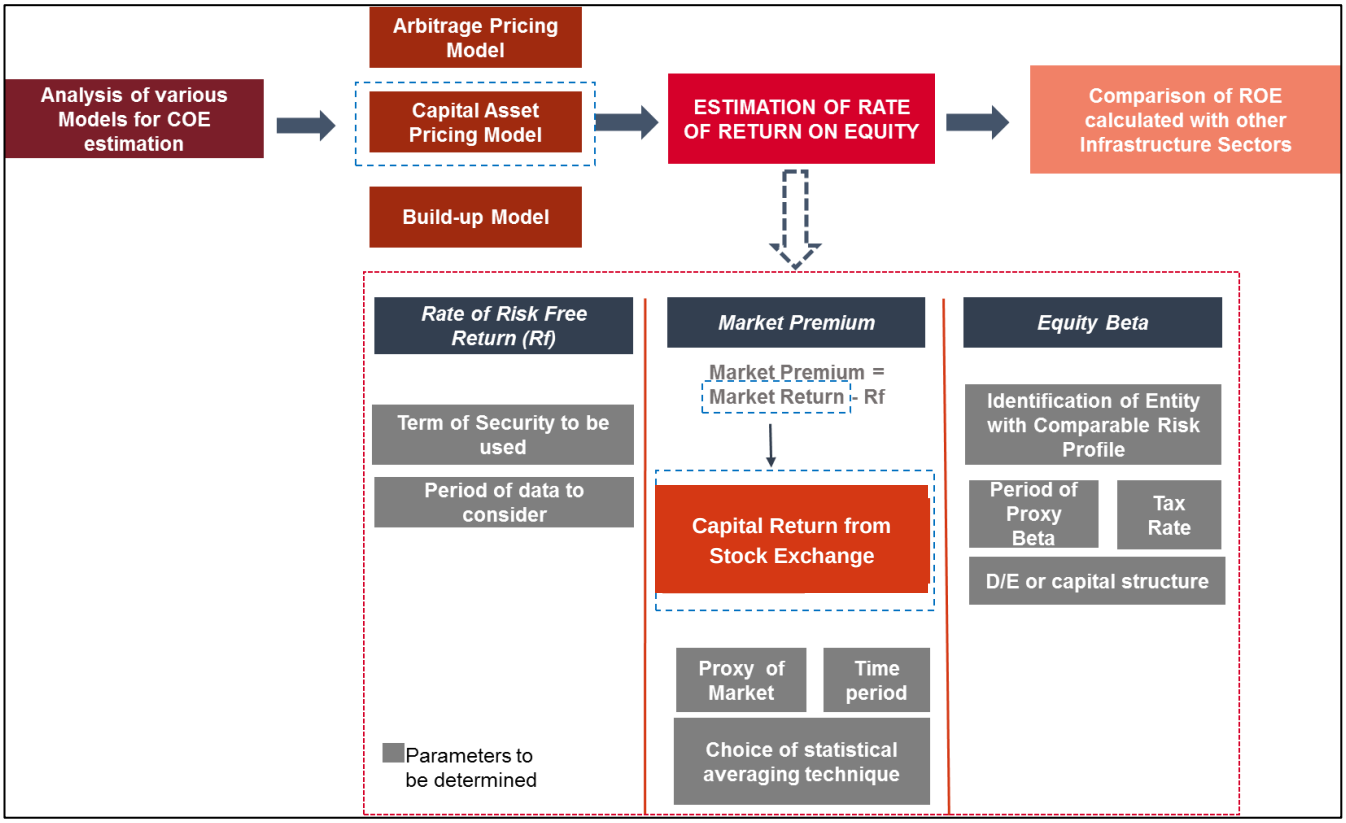
Step 5 – Equity Beta Estimation

Step 6 – COE Estimation

Step 7 – Comparison of COE/ROE calculated with other infrastructure Sectors

The primary objective of this exercise is to arrive at an appropriate value of Cost of Equity for DIAL. In order to arrive at an appropriate value, a suitable method, hypotheses and assumptions have to be applied. Several factors have been taken into consideration pertaining to the sector, company and the industry to arrive at proper assumptions at different steps of this exercise.

Figure 1: Detailed Methodology of the Exercise



2. Methodology

There are various scientific methods available to calculate Cost of Equity and we will discuss some of the popular approaches in this section.

2.1 Analysis of various models

There are various approaches to calculate Cost of Equity. Capital Asset Pricing Model (CAPM), Arbitrage Pricing Model, and Build-up Model are the popular ones.

1. Capital Asset Pricing Model:

The underlying theory of the CAPM is the "efficient market hypothesis". This hypothesis evolved in the 1960s from the Ph.D. dissertation of Eugene Fama who argued that in an active market (characterized by many well-informed and intelligent investors, none of whom is in a position to individually determine the market behaviour), the pricing of securities will be efficiently determined and will reflect all available information at that point of time. Thus, in an efficient market, no information or analysis can be expected to result in out-performance of an appropriate benchmark. A corollary of the efficient market hypothesis is that all risks that are specific to a stock (or a group of stocks) can be eliminated through diversification and hence, only systematic risks determine the return expectation of investors.

The basic theory behind CAPM is portfolio based where risks are divided into Systematic risk and specific risk. In this method assessment of the risk is done to derive the return on a particular investment.

CAPM model suggests that expected rate of return on a particular investment is equal to rate of return on risk-free security plus premium on the risk associated with the investment. The investment is advised to be avoided if the expected return is not meeting/exceeding the required return. The model is hence quite popular and widely accepted for its objective method and simplicity in application.

The equation used under CAPM to derive rate of Cost of Equity is as follows:

Expected Rate of Return Formula under Capital Asset Pricing Model

$$E(r_e) = r_f + ß_e\,(r_m - r_f)$$

Where,
$E(r_e)$ – Expected rate of return
r_f – Risk-free rate of return
ße – Equity Beta
r_m – Market Returns

The advantages and limitations of CAPM are discussed in the next subsections.

2. Arbitrage Pricing Model:

Arbitrage pricing theory (APT) or a multi-factor model is based on the idea that return on an asset can be projected using the linear relationship between the asset's expected return and multiple macroeconomic factors

that capture systematic risk. The number of factors to be considered is a subjective choice. This implies that stakeholders will have varying results depending on the choice of factors. Minimum of four-five factors have to be considered to explain most of the security's return.

The equation used under multi-factor model to derive rate of Cost of Equity is as follows:

Expected Rate of Return Formula under Arbitrage Pricing Model

$$E(r_e) = r_f + ß_1RP_1 + ß_2RP_2 + \ldots\ldots\ldots\ldots + ß_nRP_n$$

Where,
$E(r_e)$ – Expected rate of Return on an asset
r_f – Risk-free rate
RP_n – Risk premium associated with factor
n*ßn* – Sensitivity of the asset return to factor n

The model has an advantage of being adaptable according to the security under consideration. But at the same time it is complex in application because it needs a lot of research to determine the factors which are influencing a stock or portfolio. It's next to impossible to identify every influential factor and to determine the sensitivity of the portfolio to a certain factor with 100% accuracy. The common factors which have proven reliable include gross domestic product (GDP), inflation, changes in interest rates, exchange rates, market indices, investor confidence, etc. So it is up to the judgement of the analyst to select the factors which are relevant to the investment portfolio being analyzed.

Empirical evidence from the developed markets confirms that the APM explains expected returns better than the single-factor CAPM. In addition APM can add insight into the type of risk that is relevant. Key factors that could theoretically have an impact on the systematic risks of a stock are variables like interest rates, inflation, and overall growth rates in the economy, relative size of a firm in its industry etc. Deciding on which factors to include and which to exclude would be a complex exercise and would not be possible without resorting to extensive data mining.

Consequently, the application of APM in pricing and valuation exercises is rare due to the complexities involved in its implementation, especially for forecasting returns in markets where little prior data on stock price movements is available. There is little regulatory precedence of the application of APM in pricing situations, even in developed countries, where the volume of data and research available to the regulator is significantly higher than that in India.

3. Build-up Model:

The valuation of an asset begins with the risk-free rate and then the analyst valuing the asset uses "building-blocks" to determine the final rate of return, i.e., different risk premiums are added to the risk free rate. Estimation of beta is not required in this method.

The equation used under build-up model to derive rate of Cost of Equity is as follows:

Expected Rate of Return Formula under Build-up Model

$$E(r_e) = r_f + ERP + r_s + r_c$$

Where,
$E(r_e)$ – Expected rate of return
r_f – Risk-free rate of return
ERP – Equity Risk Premium
r_s – Size Premium
r_c – Specific Company Risk

The model is appropriate for privately held, medium to small size businesses where comparison with publicly traded company betas is not believed to be applicable. However the model's components like size premium and specific company risk are quite subjective in nature.

Figure 2: Comparison between different methods to calculate COE

Capital Asset Pricing Model	Arbitrage Pricing Model	Build-up Model
$E(r_e) = r_f + \beta_e (r_m - r_f)$	$E(r_e) = r_f + \beta_1 RP_1 + \beta_2 RP_2 \ldots\ldots\ldots + \beta_n RP_n$	$E(r_e) = r_f + ERP + r_s + r_c$
Objective Method: Most of the components and assumptions are objective in nature	Subjective Method: Subjectivity comes in while deciding the factors. Varying results as it depends on the choice of factors.	Subjective Method: Components like size premium and specific company risk depends on the perception of the analyst
Widespread acceptance of this method in regulatory, investing and financial community	Model is adaptable according to the asset under consideration	Appropriate for privately held, medium to small size businesses
Widely acceptable as it's easy to use with simplistic calculations	Complex in application because it needs a lot of research to determine the factors	Difficult to apply as these risk premiums are estimated quite rigorously

Some of the literature evaluated by CRIS includes:

1. The UK Civil Aviation Authority's regulations on calculating cost of capital
2. Civil Aviation Authority of New Zealand's regulation on cost of capital
3. International Comparison of WACC decisions by Network Economics consulting group (compares
4. Regulations across New Zealand, Australia, USA, Canada, UK and Rest of Europe)
5. The Tariff Authority on Major Ports' (TAMP), India and CERC regulations on cost of capital
6. SBICAPs report on Fair Rate of Return for Indian Aviation Sector by the Airports Authority of India

7. Past reports for calculation of COE for DIAL and MIAL
8. NIPFP report on Estimating Cost of Equity for Private Airports in India

Most of the regulators and organizations use Capital Asset Pricing Model (CAPM) to estimate the Cost of Equity.

2.2 Components of CAPM Model

As discussed above, various components of CAPM model are – risk-free rate of return, the return on the market, or the equity risk premium (ERP), and the equity beta, as illustrated in the equation below:

Cost of Equity = Risk Free Rate + Beta (equity) * (Market Returns - Risk Free Rate)

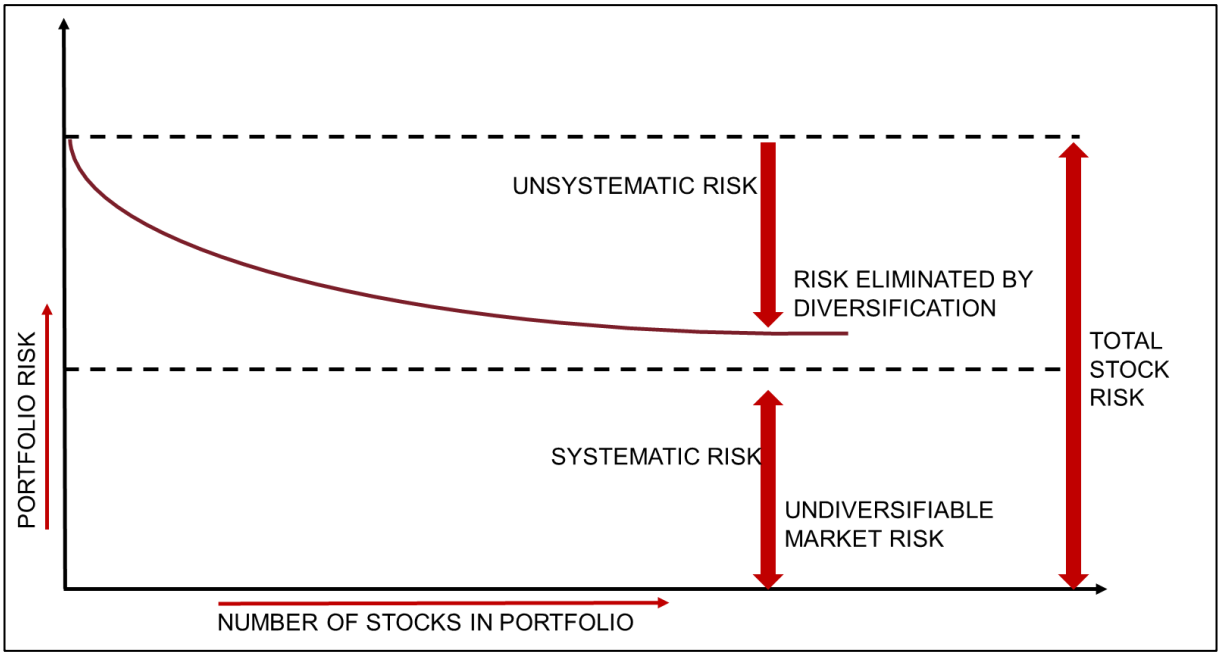
As evident from the equation above, the expected rate of return on an asset at any given point of time is a function of the prevailing risk-free rates in the economy, the expected returns on a well-diversified market portfolio and premium associated with taking an exposure to any particular investment.

2.3 Advantages of using CAPM model

CAPM is widely acceptable as it is easy to use with simplistic calculations. As compared to other models, the objective nature of the estimated costs of equity yielded by this nature is quite advantageous. CAPM is a real close theoretical representation of the financial markets behavior.

Systematic risk is directly affected by economic scenario of a country and arises on account of economic uncertainties and the inclination of individual stocks to change together with the changing scenarios in the market. **Unsystematic risk** on the other hand arises out of factors which are unique to an individual stock and can be avoided by diversification of portfolio. CAPM model accounts for the systematic risk by estimating beta which is a measure of this type of risk. It eliminates unsystematic risk by assuming that investors hold diversified portfolio of investment. The model takes into consideration systematic risk as well which is overlooked in other models.

Figure 3: Reduction of Unsystematic Risk through Diversification



The major advantage of CAPM is that it achieves a good balance between theoretical rigour and implementation ease. There is sufficient regulatory precedence of usage of the CAPM to justify its widespread acceptability, both in the regulatory community and the investing community. In addition, dependence of the CAPM on market data fulfills one of the major regulatory objectives i.e. to mimic as closely as possible a well-functioning market.

In spite of the various advantages of the CAPM model, it has some limitations. CAPM model assumes that the markets are perfectly efficient and the perception about the risk-return profile of the assets are homogenous in the market. This may not be reflective of the actual market conditions. Another limitation of the model is that certain assumptions, such as determination of comparable assets for calculation of proxy beta, is quite complex in the current scenario and is mostly based on analyst's perception.

In view of the above, it is felt that the CAPM model is the best suited model for estimation of Cost of Equity both from a regulatory acceptance and market dependence perspective. The detailed characteristics of various components of CAPM and associated value for DIAL are discussed in next sections of the report.

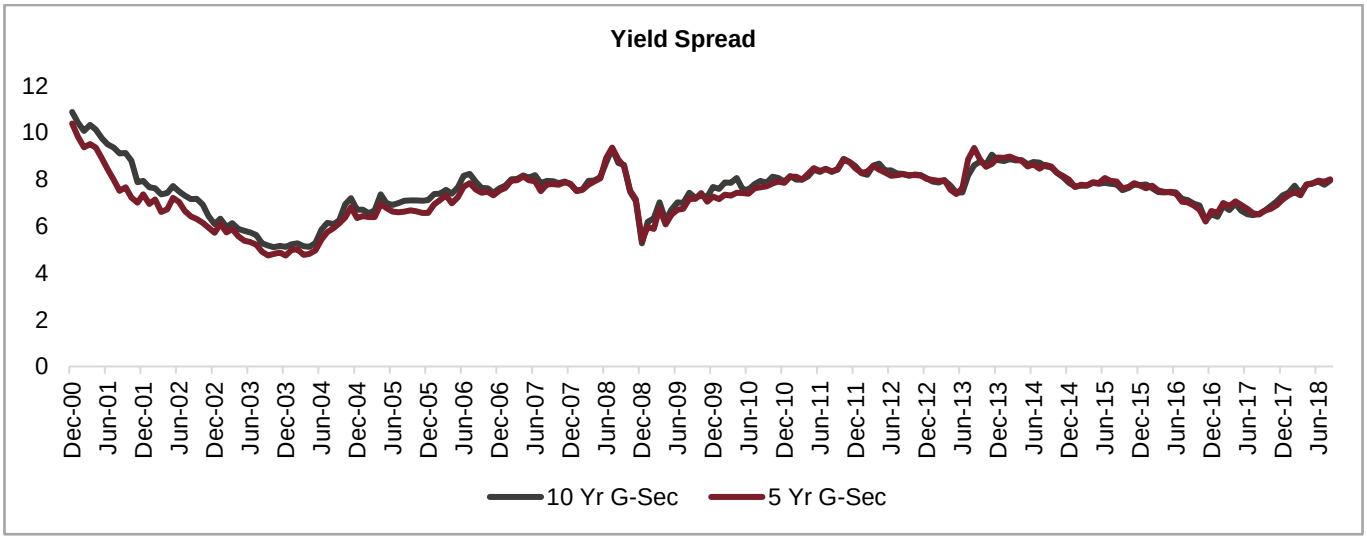
3. Risk Free Rate

Risk free rate of return is the nominal rate expected on an investment that have zero default risk and no reinvestment risk involved. Ideally no asset can be categorized as completely risk-free, as each asset carries some amount of risk. However the degree of risk in investing Government Securities is so negligible that they can be categorized as risk-free assets. Hence the best proxy for risk-free rate of return on assets is offered by the market yields on Indian Government Securities.

There are two parameters which are to be considered while choosing the security and deriving actual risk-free rate:

- **Term of security to be used as proxy –**There is a spread between short-term rates and long-term rates as short-term instruments are less risky as compared to long-term instruments (refer to the Figure below). However long-term instruments provide closer match to the planning horizon of investors and compensate them for making long-term investments over the economic life of the asset.

Figure 4: Yield Spread



Source: Bloomberg, RBI

In the Indian debt market, the liquidity in government securities with a residual term of 10 years is fairly high and the long term rates are more stable.

Risk-free rates in valuation depends upon the time period the cash flow is expected to occur.

Time horizon matters a lot while estimating risk free rate as it varies across time. Therefore if the cash flow is expected to stretch out over the long term, the risk-free rate has to be long term risk free rate. Hence we suggest use of government securities with a residual term of 10 years as the proxy for risk-free rates. This would also provide a closer match to the planning horizon for an airport. For determination of risk free rate, many airport regulatory authorities across the globe as well as domestic regulatory authorities across other infrastructure sector use long-term securities with residual term of 10 years (as illustrated in table below).

Table 1: Benchmarks for Risk Free Rate

Country/Sector	Regulator	Term for Risk free rate
UK	The UK Civil Aviation Authority	10
Australia	All Jurisdictional Regulators	10
New Zealand	Civil Aviation Authority	The review period (5 years)
India – Ports	TAMP	10
India – Power	CERC	8

- **Period of data to consider –** There are three options to choose from while deciding this parameter –**spot yields**, **historical averages** or a **projected value** to give indications for the likely future yields on these risk-free assets.

The spot rate works on the principle of estimating current market expectations of likely future interest rates. However there's possibility of certain volatilities in the yields as markets are likely to be influenced by short-term liquidity considerations. Hence there's a chance of using an erroneous data-point if we're using spot-yield as the benchmark rate. Thus spot-yield has not been considered.

An average of yields over a long term could be considered as the benchmark yield. It is pertinent to note that a very long term (over 10 years) average would not be appropriate due to secular trends in interest rates. However the period should not be short term as well as we need to minimize the distortion that can be caused by any volatility in a spot estimate. Hence we suggest using 10-year average of yields as proxy for risk-free rate. This would factor in the most recent information and cover a substantial time period to reflect the liquidity cycle as well.

To limit the volatility associated with daily change in risk free rate, we have used monthly risk free rate data. This monthly data has been listed for the entire time period for which the average rate is to be calculated. Average risk free rate has been calculated based on the monthly data.

Table 2: Rate of Risk-free Return in various scenarios

Period of Data	Average of RFR
6 Months	7.77%
1 Year	7.47%
5 Years	7.66%
10 Years	7.74%

As can be observed from the table above that the rate of risk-free return generated by average yield for various periods do not vary considerably.

In India, the details of historical movement of government securities yield trends can be derived from the Reserve Bank of India database and the Bloomberg database. To estimate the rate of risk-free return we are taking average yield of 10 year government securities from 1st September, 2008 to 31st August, 2018**, i.e., 10 years**

4. Market Return Premium

Market premium is the premium that the investors expect as compensation for investing in a risky asset, over and above the risk-free rate of return. The premium is derived by subtracting rate of return on risk-free asset from the expected return on the market portfolio of risky assets. Market Return is the return expected on a well-diversified market portfolio. Market return, in turn, can be calculated by estimating the capital return from the stock exchange for a particular time period along with the dividend yield

Market Return = Capital Return from Stock Exchange + Dividend Yield

Calculation of market premium will involve estimating market returns based on actual historical returns. This would be dependent on certain factors such as:

Choice of proxy of 'market' – There is no variable that singlehandedly captures all information available in the 'market'. In absence of such a variable, an established stock market index (domestic as well as global) is used as a proxy – such as BSE 100, BSE Sensex, and S&P 500 etc.

1. **Nifty:** Base year is 1995. Relatively shorter history (as compared to BSE Sensex and BSE 200) may not reflect true picture of the economy cycles. Broader market indices will give skewed results while calculating market risk premium due to the weight of the not frequently traded shares.
2. **BSE 200:** Base year is 1989-90. Relatively shorter history (as compared to BSE Sensex) may not reflect true picture of the economy cycles. Although the high diversity of the market represents the market better. But due to lack of liquidity, returns may get distorted as it adds liquidity-related risks.
3. **BSE Sensex:** Long history of the index captures better picture of the economic cycles. Small quantity of constituents in the index may not symbolize the market precisely. However, the Sensex signifies the most efficient face of the Indian stock market. The constituents have high liquidity which doesn't add any liquidity related risks.
4. **International Index:** An international index would not be able to capture the country-specific risks. It is appropriate for illiquid markets whereas India has a buoyant equity capital market with sufficient liquidity.

Hence, BSE Sensex being the oldest and well established stock market index available having long history and higher liquidity, we suggest using BSE Sensex as a proxy for market. TAMP also suggests the use of the longest period available, so BSE Sensex is appropriate considering it has the longest history of index.

Time period for market risk premium calculation – According to one of the inferences of efficient market assumption on which CAPM model is based, market returns are normally distributed. The best way to replicate the normal curve as thoroughly as possible would be to include as many data points as possible in the calculation. Thus ideally historical data pertaining to the longest possible time period should be used. As the long term trends are captured effectively if longer term return is used, using data for the last 40 years in the calculations for market return is ideal.

Choice of statistical averaging technique – Historical market returns can be calculated by any of the three methods:

- **Arithmetic Mean:** This method is based on the assumption that periodic returns are serially uncorrelated across periods. Arithmetic mean takes into account all the data points to estimate market return. However, short term volatility over a secular long-term trend will impact the results. In case the markets show negative serial correlation (periods of high returns followed by periods of low returns), this approach is likely to introduce a systematic upward bias in the estimate of market return.
- **SIP method:** It removes the short-term volatility related bias in the arithmetic averaging technique. At the same time, since it factors in all the information on market behaviour in intermediate periods, it does not suffer from the

critical dependence on the choice of pricing period also. TAMP,long-term investors like Mutual Funds, FIs etc, use this method.The SIP assumes that an investor is making systematic investments in buying index-based units at regular periodic intervals. The total number of units that he accumulates at the end and the prevailing index levels determines the overall value of his investments. The IRR on this stream of systematic investments can be estimated and used as the systematic returns on the index.

- **Geometric mean:** The geometric mean, in comparison to the arithmetic mean, provides a better estimate of market returns in case of negative serial correlation by avoiding the effects of short term volatility. However, it cancels out all the effects of intermediate periods as this approach takes into account only the start period and end period value. The choice of the two end points will be the deciding factor while estimating the returns and tends to impact the returns significantly.

The geometric mean technique has been used in the past for calculating market return in the aviation sector and the same has also been adopted in the base case analysis of this report

Note: *For global indices that represent data from efficient markets, the variance between the results from the three methods should be minimal. However, for domestic indices, significant variance can be expected, especially given the context of the short history and high volatility in the domestic markets.*

Method	Capital Return from Stock Exchange
AM	*19.64%*
GM	*15.57%*
SIP	*15.08%*

Source: CRIS Analysis

Dividend Yield: The dividend yield has been calculated based on the average annual dividend yield provided by the BSE Sensex. As data on the BSE Sensex is only available from 1998 till date, the same has been used for analysis in this report. Accordingly, an average value has been considered for this period which comes to 1.49%.

Total Market return = 15.57% + 1.49% = 17.06%

5. Beta

Equity beta is the measure of the systematic risk of the stock i.e. the risk that cannot be eliminated in a well-balanced, diversified portfolio. It estimates the expected volatility of a particular stock relative to a well-diversified market portfolio. To put it simply, it's a measure of performance of an asset in comparison to the market as a whole. The procedure for calculating the equity beta is as follows

- Calculate the historical equity beta based on data available
- De-lever the historical equity beta to arrive at asset beta (β_a)
- Benchmark the asset beta
- Re-lever the asset beta to arrive at a forward looking equity beta

Thus for calculation of asset beta we need to determine the following parameters first:

Entity with comparable risk profile: Since none of the entity, in India, which has major revenues from airport operations is listed on the stock markets, the method of using historical equity data as defined above cannot be followed. In this situation, another option is to use benchmark asset betas from other companies/sectors in domestic markets which have a comparable risk profile. In absence of good benchmarks in the domestic market, foreign markets are explored. These asset betas are then re-levered to arrive at equity beta using the following formula

Formula to re-lever Asset Beta to get Equity Beta

$$\beta_e = \beta_a (1+(1-T)*(D/E)$$

Where,

β_e is the equity beta

β_a is the asset beta

T is the marginal tax rate

D/E is the debt equity ratio of gearing level

The estimate for Beta will incorporate non-diversifiable risks related to DIAL specifically and risks in the case of the airport sector as well. Risks related to DIAL specifically will be precisely captured when we re-lever the beta to incorporate DIAL's debt-equity mix. Risks in airport operations can be generally classified as follows:

- Demand Risk (volatility in air traffic volume and other non-aeronautical services like retail & hospitality)
- Regulatory Risk (certainty of regulatory environment)
- Counterparty Risk (poor performance or liquidity / solvency issues of airlines or other counterparties)
- Input Risk (Volatility or non-availability or cost of key inputs like human resources, technology)

Airports in developing markets are exposed to each of these risks differently when compared to developed markets

- Demand Risk – Apart from the economic conditions which affect demand, demand for air travel is also highly elastic with respect to air fare in India and other developing economies. Any increase or decrease in air fare due to fuel prices or other input costs results in relatively higher traffic volatility.
- Counterparty Risk – Airports in developing countries typically derive a major part of their revenue from aeronautical services, as against the developed markers where non-aeronautical revenue is higher.
- Regulatory Risk – Regulations in developing countries are still evolving and are not stable.

Asset beta of airports in developing countries is consistently higher than the asset beta of airports in developed economies, reflecting higher risk, as illustrated in table below. A data set of 22 listed airports has been taken for asset beta estimation. 11 data points are from developed countries as illustrated in Table 3 and 11 data points are from developing countries as illustrated in Table 4.

Table 3: Asset Beta of Airports in Developed Countries

Sl. No	Name of Airport Operator	Country	Asset Beta	Category
1.	SAVE	Italy	0.82	Developed
2.	Aeroports de Paris	France	0.36	Developed
3.	Auckland International Airport	New Zealand	0.81	Developed
4.	Kobenhavns Lufthavne	Denmark	0.27	Developed
5.	Flughafen Wien AG (FLU)	Austria	0.69	Developed
6.	Flughafen Zuerich AG-REG	Switzerland	0.54	Developed
7.	Frankfurt International Airport (FRA)	Germany	0.32	Developed
8.	Japan Airport Terminal Company	Japan	1.28	Developed
9.	MAP Group	Australia	0.14	Developed
10.	Malta International Airport - A Shares	Malta	0.70	Developed
11.	Societa Aeroporto Toscano Galileo Galilei SPA	Italy	0.31	Developed

Source: Bloomberg

Table 4: Asset Beta of Airports in Developing Countries

Sl. No	Name of Airport Operator	Country	Asset Beta	Category
1.	Beijing Capital International Airport Co. Ltd.	China	0.62	Developing
2.	Groupo Aeropaortuario del Centro Norte	Mexico	0.61	Developing
3.	Groupo Aeropaortuario del Pacifico	Mexico	0.08	Developing
4.	Gangzhou International Airport Co. Ltd.	China	0.72	Developing
5.	Malaysia Airport Holding BHD	Malayasia	1.12	Developing
6.	Shanghai International Airport CO.Ltd	China	0.62	Developing
7.	Shenzhen Airport Co. Ltd	China	1.03	Developing
8.	TAV Havalimaniari Holding AS	Turkey	0.17	Developing

Sl. No	Name of Airport Operator	Country	Asset Beta	Category
9.	Xiamen International AIR-A	China	0.95	Developing
10.	Groupo Aeropaortuario del Sureste	Mexico	0.24	Developing
11.	Airports of Thailand PCL	Thailand	0.85	Developing

Source: Bloomberg

Table 5: Asset Beta comparison of Developed and Developing Countries

Asset Beta	Developing Countries	Developed Countries	All Countries
Average Asset Beta	0.64	0.57	0.60

Source: CRIS Analysis

The SBICAPs Report on Fair Rate of Return for Indian Aviation Sector by the Airports Authority of India uses asset beta for emerging markets. The NIPFP report also mentions that for the 2012 regulatory cycle, a large sample set of airports was taken and subsequently after better understanding of market conditions, a smaller set of airports may be considered. Since there is a better understanding pertaining to the market for next control period and considering the behavioral pattern of developing economies to follow a similar trend, it is prudent to use beta for developing economies to arrive at beta value for DIAL.

Furthermore, it is observed that the asset beta of private companies in other infrastructure sectors in India ranges from 0.5 to 1.3. This suggests that asset betas in India are on the higher side and comparable to asset betas of airport companies in developing countries. Hence, the asset beta of developing countries will be best proxy for assuming the asset beta of DIAL as it will follow the same characteristics going forward.

Period of proxy beta: The beta should be calculated over a period of time in order to avoid short term volatilities in the market. Also a very long period cannot be taken at the same time as the operations of most of the entities would be limited in number of years. Hence we suggest using 3-year reference betas to avoid these issues.

Tax Rate: We need to determine whether to use the marginal tax rate or effective tax rate for arriving at the asset beta. During the initial period of operation new entrants are to be expected to have high capital expenditure and incur considerable operating losses. This tends to influence their effective tax rates due to loss carry forward provisions. All companies are expected to be paying tax at the marginal tax rates over the long run. Initial-period tax breaks are likely to be offset by higher effective tax rates once the periods of tax benefits are over. The TAMP in India and UK Civil Aviation Authority in India also adopt the marginal tax rate only. Hence we suggest using the tax rate as marginal tax rate which is currently at **34.61%**[1] (Tax Rate for 2018-19, where total turnover or gross receipts during PY 2015-16 exceed 50 cr and income exceeds 10 cr).

D/E or capital structure: While most of the airports across the world have very low book debt-equity ratio with a median at around 0.5 times, airports in India are highly leveraged at around 2 to 3 times. In India, there is a considerable risk associated with investing in infrastructure projects. Further there is added risk of operating the airports in India under PPP framework. Generally infrastructure projects undertaken under PPP model are funded at D/E ratio of 2-3 times taking into account various project specific risks.

D/E ratio captures the risk factors which are specific to DIAL. Various risks factors specific to DIAL have been listed in the table below.

[1] *Source: Income Tax Act*

Table 6: Risk Factors specific to DIAL

Risk Factors	Description
Demand risk	DIAL majorly derives its revenue from aeronautical services. Thus it is highly dependent on the demand which in turn is quite volatile in developing economy like India. Demand is highly sensitive to the ticket prices. Global factors like economic slowdown, fuel charges, etc. affect the ticket prices. Hence the airport is exposed to risks on a global level as well
Counterparty risk	As DIAL's major share of revenue comes from aeronautical services, the performance of an airline directly impacts the revenue stream of the airport which contribute significantly to the aeronautical revenue
Regulatory risk	India is still in the stage of regulatory development in the airport sector resulting in an "uncertainty" in the revenue stream. On top of this, the country has just started exploring PPP frameworks in airports, leaving the sector more exposed to the regulatory risks.
Competition risk	Currently DIAL is serving the complete NCR region traffic which includes Delhi. Development of newly proposed second airport in the region (Noida) may have a great degree of impact the revenue of DIAL airport considering the shift of passengers to the new airport.

In addition to arriving at the equity beta, capital structure also has an impact on the overall weighted average cost of capital. The book value of debt to equity ratio for DIAL for various scenarios (3,5,9 years) has been given in the annexure. For the base case range, the D/E ratio is assumed to be around 1.5 and 2.33 for the next control period which is close to the D/E ratio also considered under normative approach.

6. Cost of Equity estimates for DIAL

6.1 Base Case Range

Cost of Equity has been estimated for the base case range as discussed above with respect to various parameters

1. Risk free rate is calculated by taking 10 year average yield for 10 year government securities
2. Rate of market return is estimated by taking last 40 years data of BSE Sensex using Geometric Mean method and adding Dividend Yield based on longest available data on BSE Sensex.
3. Asset beta is taken as mean of developing countries' asset beta.
4. D/E ratio is taken based on the normative approach with the following values:
    i. D/E = 1.5
    ii. D/E = 2.33

Table 7: Cost of Equity Estimation for Base Case Range

Parameter	
Risk Free rate	7.74%
Market Return	17.06%
D/E Ratio	1.50
Equity Beta	1.25
Cost of Equity	**19.51%**
D/E Ratio	2.33
Equity Beta	1.60
Cost of Equity	**22.71%**

Hence, the COE for DIAL for the base case scenario ranges from19.5% to 22.7%.

6.2 Scenario Analysis

As per the order issued by Telecom Disputes Settlement and Appellate Tribunal (TDSAT) for DIAL, the refundable security deposits (RSD) are to be treated as capital receipts and with an expected rate of return. In case the RSD is used for further capital expenditure related to the airport it will form part of cost of capital. Hence for arriving at the D/E ratio, RSD can be treated in the following ways:

1. RSD is added to Debt
2. RSD is added to Equity

3. RSD is not included in Debt or Equity

The various scenarios for COE based on treatment of RSD for DIAL is shown in the table below**.**

Table 8: Cost of Equity Estimation – Scenario Analysis

S. No	Risk Free Rate - no. of years	Risk Free Rate - Percentage	Market Returns - value	Comparable Airports	RSD added to	D/E Ratio- years considered (from 2009-10)	D/E ratio	Equity Beta	Calculated COE
1	10	7.74%	17.06%	Developing	Equity	9	1.58	1.30	19.83%
2	10	7.74%	17.06%	Developing	Debt	9	3.04	1.90	25.48%
3	10	7.74%	17.06%	Developing	None	9	2.47	1.67	23.27%

7. Comparison with other sectors

The rate of Cost of Equity/Return on Equity in other infrastructure sectors as allowed/recommended by respective authorities are outline below:

7.1 Ports

For the projects undertaken on PPP basis at Major Port Trusts, clear guidelines are defined in the notified document named 'Guidelines for upfront tariff setting for PPP projects at Major Port Trusts, 2008'. As per clause 2.4 of the guidelines, for the purpose of fixing upfront tariff, TAMP shall follow an approach which will recognize capital and operating costs estimated based on the norms set by these guidelines and allow a reasonable return on capital employed, which is 16% as of now. Further the clause 3.7 details the ROCE and states that the norm for determining the quantum of Return on Capital Employed is 16% as of now.

Recent Policy for Determination of Tariff for Major Port Trusts, 2015 also sets ROCE at 16% for the major port trusts. As per Clause 2.1 of this document, each major port will assess the Annual Revenue Requirement plus return at 16% on capital employed.

7.2 Power

Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 determines tariff for a generating station or a transmission system. As per Chapter 6, Clause 24 of the tariff regulation Return on Equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage.

7.3 Oil and Gas

As per the Petroleum and Natural Gas Regulatory Board (Determination of Network Tariff for City or Local Natural Gas Distribution Networks and Compression Charge for CNG) Regulations, 2008 (Clause 3 of Schedule A), the reasonable rate of return shall be the rate of return on capital employed (ROCE) equal to 14% post-tax.

7.4 Roads and Highways

For BOT (Toll) Projects, a circular by the Ministry of Road, Transport & Highways (MoRTH) dated 16th June 2014 suggests that the Return on Equity for BOT (Toll) projects should be 15% to standardise assumptions for appraisal of PPP Projects.

Summary of COE values across infrastructure sectors is provided in the table below:

Table 9: Cost of Equity/Return on Equity for various infrastructure sectors

Sector	Cost of Equity (COE) / Return on Capital Employed (ROCE)	Source
Ports	ROCE = **16%**	Guidelines for upfront tariff setting for PPP projects at Major Port Trusts, 2008 and Recent Policy for Determination of Tariff for Major Port Trusts, 2015
Power	ROE = **15.50%** for thermal generating stations, transmission system including communication system and run of the river hydro generating station, **16.50%** for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage	Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014
Oil and Gas	ROCE = **14%**	Petroleum and Natural Gas Regulatory Board (Determination of Network Tariff for City or Local Natural Gas Distribution Networks and Compression Charge for CNG) Regulations, 2008
Roads & Highways	ROE = **15%** for BOT (Toll) Projects	Circular by the Ministry of Road, Transport & Highways (MoRTH) dated 16th June 2014 (to standardise assumptions for appraisal of PPP Projects)

Notes:

1) Return on Capital Employed (ROCE) is the return on total debt and equity components. As return on debt is typically equal to the interest rate (~10-11%), Cost of Equity will typically be greater than ROCE calculated.

2) Indicated returns are typically returns prescribed by the Authority. Actual returns to the developer depends on the individual project wise bids received.

3) It is pertinent to note that in the airports sector, estimation of aggregate revenue requirement (ARR) takes into consideration the regulated asset base and fair rate of return (RAB x FRoR). FRoR is calculated as the gearing ratio for the control period under consideration which is essentially Weighted Average Cost of Capital (WACC). The RAB keeps on diminishing year on year because of the effect of depreciation during the project life cycle. So the effective Cost of Equity also diminishes over the years in the airports sector. For example, if we assume an COE of 16% for an airport, the overall Cost of Equity for the entire project life cycle will be lower than 16%.

8. Conclusion

Based on the analysis of various factors under the CAPM model, the Cost of Equity for DIAL for base case scenario ranges from 19.5% to 22.7%.

9. Annexure

9.1 Asset Beta for Infrastructure Companies in India

The asset beta for companies in other similar / regulated sectors in India are captured in the table below. The comparison suggest that even though the airport sector may be different from other similar / regulated sectors on individual parameters, which characterize risk in an industry, the overall risk in the sector is similar to these sectors.

Table 10: Asset Beta of Infrastructure Companies in India

Sl. No	Name of Company	Asset Beta of last 5 years	Sector
1.	Adani Ports & Sez Limited	0.57	Ports
2.	Essar Ports	0.30*	Ports
3.	L&T IDPL	0.79	Roads
4.	Reliance Infrastructure Limited	1.37*	Roads/Power
5.	IRB Infrastructure Developers Limited	0.71	Roads
6.	JSW Energy Ltd.	1.14	Power
7.	Tata Power Company Limited	0.92	Power
8.	Airtel	0.59	Telecom
9.	Reliance Communication	1.30*	Telecom

**Not available for all years, Source: Bloomberg*

Please note few of the companies may have exposure to multiple sectors and the asset beta may vary as per their portfolio.

9.2 Debt to Equity Ratio for DIAL

There are three cases for arriving at the D/E ratio for DIAL as shown in the table below, if RSD is treated as Equity, the D/E ratio for DIAL ranges from 1.38 to 1.58, if RSD is treated as Debt, the D/E ratio ranges from 2.80 to 3.04 and if RSD is not considered at all then D/E Ratio ranges from 2.20 to 2.47 which impacts the equity beta for DIAL

Table 11: Equity Beta value for different D/E Ratio historical average

RSD added to	D/E Ratio-years considered	D/E ratio	Equity Beta
Equity	9	1.58	1.30
Equity	5	1.45	1.24
Equity	3	1.38	1.21
Debt	9	3.04	1.90
Debt	5	2.92	1.86

Debt	3	2.80	1.81
None	9	2.47	1.67
None	5	2.32	1.61
None	3	2.20	1.56

(Source: Information for debt and equity received from the Client, not verified by CRISIL Infrastructure Advisory)

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