

Airports Economic Regulatory Authority of India

Order No. 13/2010-11

**AERA Building,
Administrative Complex,
Safdarjung Airport,
New Delhi-110003**

**Date of Order: 12th January, 2011
Date of Issue: 12th January, 2011**

**In the matter of Regulatory Philosophy and Approach in Economic
Regulation of Airport Operators**

1. BACKGROUND

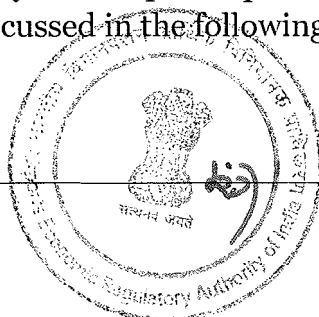
- 1.1. Pursuant to enactment of the “The Airports Economic Regulatory Authority of India Act, 2008” (hereinafter referred as the ‘Act’) and establishment of the Airports Economic Regulatory Authority (hereinafter referred as the ‘Authority’), the Authority is to perform the following functions in respect of major airports:
- 1.1.1. to determine the tariff for the aeronautical services;
- 1.1.2. to determine the amount of the development fees including User Development Fee;
- 1.1.3. to determine the amount of the passengers service fee levied under rule 88 of the Aircraft Rules, 1937 made under the Aircraft Act, 1934; and
- 1.1.4. to monitor the set performance standards relating to quality, continuity and reliability of service as may be specified by the Central Government or any authority authorised by it in this behalf.
- 1.2. As per Section 2 (a) of the Act, any service provided, inter alia, “for the landing, housing or parking of an aircraft or any other ground facility offered in connection with aircraft operations at an airport”; “for ground safety services at an airport”; “for ground handling services relating to aircraft, passengers and cargo at an airport”; “for the cargo facility at an airport”; and “for supplying fuel to the aircraft at an airport” are aeronautical services.
- 1.3. The Authority’s mandate to determine the tariff for aeronautical services; and to determine the rate of the Development Fee (DF) including User



Development Fee (UDF); and to determine the amount of Passenger Service Fee (PSF), in respect of major airports, has been suitably incorporated in the Airports Authority of India Act, 1994, and the Aircraft Rules, 1937, as well.

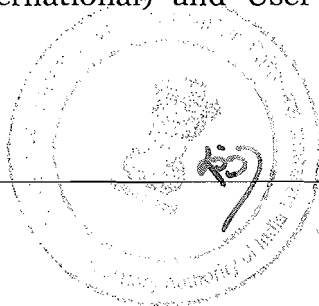
2. PROCESS OF STAKEHOLDER CONSULTATION

- 2.1. To ensure transparency in the process leading up to the framing of appropriate procedures / systems for economic regulations, as required in terms of the Act, the Authority issued a White Paper on 'Regulatory Objectives and Philosophy in Economic Regulation of Airports and Air Navigation Services' ('White Paper') on 22nd December 2009, highlighting various issues relating to economic regulation of airports; air navigation services; and cargo, ground handling and fuel supply services. The White Paper provided stakeholders an opportunity to consider the issues highlighted therein and submit evidence-based feedback, comments and suggestions. The Authority received 28 submissions in response to the White Paper. The submissions were put up on the Authority's website for general information.
- 2.2. The Authority considered various views and opinions submitted in response to the White Paper and prepared a Consultation Paper listing out the major issues impacting formulation of its regulatory philosophy and approach and laying out its rationale for the positions / approach it was minded to take. The Consultation Paper (No. 3/2009-10) was issued on 26th February 2010 with the intention of providing a further opportunity to the stakeholders to make relevant submissions to the Authority before the Regulatory Philosophy and Approach was finalized.
- 2.3. On 16th March 2010 the Authority convened a consultation meeting to elicit the views of the stakeholders in person.
- 2.4. The Authority received 21 written submissions containing suggestions and comments in respect of the Consultation Paper from the stakeholders. These suggestions and comments together with the minutes of the meeting held on 16th March 2010 may be accessed on the Authority's website (<http://aera.gov.in>).
- 2.5. The Authority also received two further submissions from Association of Private Airport Operators (APAO) on the consultation protocol and the cost of equity.
- 2.6. The Authority has considered views and responses submitted by the stakeholders on various aspects of Consultation Paper. The issues relevant to the services provided by the Airport Operators and the Authority's findings thereon are broadly discussed in the following paragraphs.



3. APPLICABILITY OF REGULATORY APPROACH

- 3.1. The Authority received several responses to the Consultation Paper in respect of the applicability of the proposed regulatory approach for concessionaire / private airports, specifically as to how the Authority would take into consideration the relevant concession agreements.
- 3.2. While the Authority specified the general framework which it proposed to adopt in its economic regulation of aeronautical services in the Consultation Paper, the Authority is required, as per Section 13 (1) (a) of the Act, to determine the tariff for the aeronautical services, inter alia, taking into consideration "(vi) the concession offered by the Central Government in any agreement or memorandum of understanding or otherwise". Accordingly, the Authority had proposed to consider the provisions and consequent effects of concession agreements for the relevant airports in the process of determining tariffs for the first tariff cycle. In effect, the Authority had recognised that the covenants of the concession agreements may require appropriate modifications to be made in the general framework that has been specified in the Consultation Paper.
- 3.3. Specifically, in respect of IGI Airport Delhi (DIAL) and CSI Airport Mumbai (MIAL), the State Support Agreements, prescribe broad principles and 'shared till inflation - X price cap model' for the determination of Aeronautical Charges. Also, Chapter XII of OMDA prescribes that the Aeronautical Charges, including Passenger Service Fees, levied at the Airport (s) shall be as determined as per the provisions of respective State Support Agreements. It may, however, be mentioned that OMDA is not a concession offered by the Central Government and is an agreement between the private operator and AAI. The Authority has separately initiated a process to analyse and assess the implications of the principles and mechanics, relating to tariff fixation, contained in the SSA(s) in consultation with the respective Airport Operators. The Authority would thereafter separately determine the extent to which the covenants of the SSA(s) would impact the general framework being laid down here.
- 3.4. In respect of Bengaluru Airport (BIAL) and RGI Airport Hyderabad (GHIAL), the article 10 of the respective Concession Agreements prescribe that Regulated Charges, i.e., Airport Charges specified in Schedule 6 of the Concession Agreement, shall be consistent with the ICAO policies. The Regulated Charges, as prescribed in the Schedule 6, are Landing, Housing and Parking charges (Domestic and International), Passenger Service Fee (Domestic and International) and User Development Fee (Domestic and International).



- 3.5. The Authority notes that in addition to the charges prescribed as Regulated Charges in the Concession Agreements relating to Bengaluru and Hyderabad airports, in terms of the provisions of the Act, it would also be required to regulate the tariffs relating to aeronautical services contained in Section 2 clause (a) sub-clauses (iii)–(vi) of the Act. Further, the Authority believes that the general framework for economic regulation of aeronautical services as being laid down here is consistent with the ICAO policies. Therefore, the framework being laid down here would also be applicable to Bengaluru and Hyderabad airports.
- 3.6. The Consultation Paper had also highlighted that the position discussed therein may not apply, ipso facto, to the two Civil Enclaves (at present, Goa and Pune) under the regulatory ambit of the Authority. Appropriate views in respect of the said Civil Enclaves will need to be taken by the Authority with the representation of the Ministry of Defence in accordance with the provisions of sub-section (1) of Section 4 of the Act, on a case to case basis.
- 3.7. To summarise, the regulatory approach being laid down in this order shall be applicable to all major airports subject to the position explained in Paragraph 3.3 and 3.6 above.

4. STAKEHOLDER RESPONSES TO REGULATORY APPROACH AND PHILOSOPHY

- 4.1. In general, respondents expressed support for the Authority's proposals in relation to how it should interpret its regulatory objectives.
- 4.2. However, International Air Transport Association (IATA) raised a substantive comment based on ICAO principles of non-discrimination and non-cross subsidization. IATA argued that there should be no discrimination between the different categories of users, and in particular revenues from international traffic should not be used to subsidise services to domestic traffic, and vice versa. It argued that such discrimination would contravene the spirit of Article 15 of the Chicago Convention.
- 4.3. Article 15 of the Chicago Convention states:

Every airport in a contracting State which is open to public use by its national aircraft shall likewise, subject to the provisions of Article 68, be open under uniform conditions to the aircraft of all the other contracting States. The like uniform conditions shall apply to the use, by aircraft of every contracting State, of all air navigation facilities, including radio and meteorological services, which may be provided for public use for the safety and expedition of air navigation.

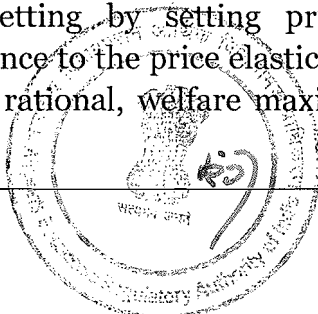


Any charges that may be imposed or permitted to be imposed by a contracting State for the use of such airports and air navigation facilities by the aircraft of any other contracting State shall not be higher,

- a) *As to aircraft not engaged in scheduled international air services, than those that would be paid by national aircraft of the same class engaged in similar operations, and*
- b) *As to aircraft engaged in scheduled international air services, than those that would be paid by its national aircraft engaged in similar international air services*

All such charges shall be published and communicated to the International Civil Aviation Organization, provided that, upon representation by an interested contracting State, the charges imposed for the use of airports and other facilities shall be subject to review by the Council, which shall report and make recommendations thereon for the consideration of the State or States concerned. No fees, dues or other charges shall be imposed by any contracting State in respect solely of the right of transit over or entry into or exit from its territory of any aircraft of a contracting State or persons or property thereon.

- 4.4. A plain reading of Article 15 makes it clear that it is specific to the question of equal treatment between national aircraft and aircraft from other contracting states and appears to be designed to secure that national aircraft do not obtain an unfair advantage in competition with aircraft from other contracting states.
- 4.5. It is apparent that the application of Article 15 of the Chicago Convention, 1944 requires that India, as a contracting state, establish non discriminatory tariff for service provided to aircraft of all contracting state engaged in international civil aviation.
- 4.6. It is also clear that Article 15 does not extend its application to tariff for domestic civil aviation.
- 4.7. In substance, ICAO principle is that there is no discrimination between the aircraft on account of their nationality. The Authority fully supports the principle of non-discrimination and is minded to have due regard to this principle in respect of similarly placed aircraft.
- 4.8. However, the Authority believes that in some circumstances there may be sound economic rationale for an element of price discrimination between different categories of customers. For instance, the work of economist Frank Ramsey in the 1920s shows that social welfare could be maximised in a regulated revenue setting, by setting prices for different categories of customers with reference to the price elasticity of demand of those customers. Such pricing may be rational, welfare maximising and not therefore unduly

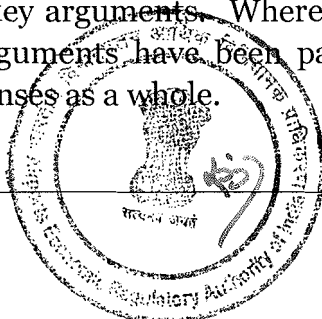


discriminating. Equally, there may be legitimate social or wider public policy objectives that some price discrimination would benefit.

- 4.9. The above mentioned position of the Authority has already been stated in Order No.4/2010-11 issued on 30th June 2010 and Order No.5/2010-11, issued on 2nd August 2010 and no objections have been raised by any stakeholder in response thereto.

5. CONSULTATION PAPER RESPONSES: REGULATORY TILL

- 5.1. Most of the respondents commented on the Authority's proposal for a single till basis of regulation. Under the single till basis, airport charges are set with reference to the net costs of running the airport, taking into account other revenues arising at the airport, loosely called non aeronautical revenues.
- 5.2. Broadly, airlines and organisations representing airlines supported the Authority's proposals. However, private Airport Operators, investors and organisations representing private airports, argued against the Authority's proposals, arguing instead in favour of a dual till approach, wherein surpluses attributed to non aeronautical activities are treated as profits for the investors in the airport. Some others argued for a hybrid till approach that allows only a part of such surpluses from non aeronautical activities to defray airport costs for the purpose of setting airport charges.
- 5.3. AAI, the state owned Airports Operator, presented a more nuanced position. It stated inter alia "*Basic issue which concerns the tariff is the public interest at large. State Govts at times, are providing land for development/upgradation of airports in their States, free of cost and free from encumbrances. If revenue generated from non aeronautical activities is considered while fixing the tariff, it serves the interest of State and public. However, if this revenue is taken out to subsidies other airports, there could be objections from States. Thus Single Till which helps in keeping the operational/aeronautical tariff low, would be advisable, where State Govt. Provides facilities for development and upgradation.*" Planning Commission also favoured adopting the single till approach to determine airport charges "*as it treats airport as an integrated business and sets tariff without making any distinction between aeronautical and non aeronautical services. Single till approach comes closer to maximize welfare than the dual till approach as this approach takes all airport assets and costs into account while determining the tariff rates.*"
- 5.4. The Authority has carefully considered each response and sets out below how it has addressed the key arguments. Where there was some commonality in the responses, the arguments have been paraphrased to try to capture the essentials of the responses as a whole.

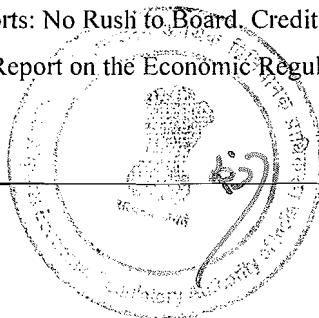


Comparisons of charges at different airports are inconclusive, but do not support the assertion that single till leads to lower tariffs.

- 5.5. At the outset, the premises which guide the Authority to decide on the single till framework of economic regulation of airports are given below:
- 5.5.1. Core activity at the airports is to provide “aeronautical services”. Non aeronautical activities/services are non-core activities of the airports.
- 5.5.2. Aeronautical services are ultimately provided to the passengers/cargo facility users whose interests are paramount. In its comments on the Authority’s White Paper dated Dec 26, 2009, Ministry of Civil Aviation has also concurred stating that “*Consumer’s interest is of paramount importance and it should be kept in view while deciding about the form of regulation.*” Hence, moderating charges for passengers is the primary focus (in addition to quality of service, Fair Rate of Return etc.)
- 5.6. The general assumption by respondents in the till debate is that non aeronautical revenues exceed the costs normally allocated to those activities, including the normal cost of capital on the allocated share of the assets employed. Secondly, the profitability of non aeronautical activities and services is much higher than that of aeronautical activities or services. For example, for seven major fully or partially privatised airport companies in Europe, it has been found that whilst on average retail revenues account for only 13% of total revenues, they represent 41% of profits in terms of the earnings before interest, tax, depreciation and amortization (EBITDA) ratio (Credit Suisse, 2006)¹. Moreover at Heathrow in 2006 the profit margin (profit as a percentage of revenues) for retail was 76% compared to 39% for airport charges and 16% for terminal property. At Gatwick the profit margin for retail was again 76% whilst both airport charges and terminal property were loss making for the airport (Competition Commission, 2007)².
- 5.7. It is, however, theoretically conceivable that a dual till approach might encourage such efficiency in the aeronautical side of the business, that lower costs on aeronautical side more than offset the loss of non aeronautical revenues. Although this is not a commonly held view, the Authority’s analysis of the incentive properties of both the approaches indicates that it would be an unlikely outcome.
- 5.8. As evidence, in support of the dual till, one respondent provided some analysis of relative charges at different airports in a chart detailing levels of charges in

¹ Credit Suisse, 2006. European Airports: No Rush to Board. Credit Suisse, London.

² Competition Commission, 2007. A Report on the Economic Regulation of the London Airport Companies. Competition Commission, London.



about 50 airports around the world. The Authority notes that four out of the seven airports (or 57%) identified in the chart as dual till were among the ten highest charging airports; while two out of the eight airports (or 25%) identified as single till were in the top ten. At best, therefore, the evidence in support of the dual till on this basis is inconclusive.

- 5.9. The same respondent also showed a chart of costs per passenger at 32 US airports. The respondent noted that the basis of the 'compensatory agreement' used in the US is analogous to a dual till while the basis of the 'residual agreement' is analogous to a single till. However, the chart suggests that airports that fix charges with airlines under 'compensatory agreements' (dual till) are no more or no less expensive than those that fix charges under 'residual agreements' (single till). In the opinion of the Authority, all that the chart shows is that the airports following different till regimes (residual, compensatory or hybrid) are spread across the whole spectrum of airport charges per passenger (from a low figure of less than \$3 to over \$20 for North America)³. Put it differently, one could at best say from the chart that some single till airports are more expensive than some dual till or hybrid till airports. This is quite different from concluding that a given (particular) airport will be no more expensive under dual till than under single till.
- 5.10. Notably, the existence of federal statutory prohibitions against revenue diversion at US airports means that caution is necessary when interpreting these analogies⁴.
- 5.11. Airports in the US are overwhelmingly owned and operated by municipal, county, regional or state governments with federal financial support and federal regulatory oversight.
- 5.12. US airports that receive or have received federal funds in the past are subject to a general prohibition against "revenue diversion". This means that, with a few exceptions⁵, all revenues generated at an airport must be applied in the funding of airport operations or investment at the airport. Diversion of funds for any other purpose is, thus, effectively prohibited.

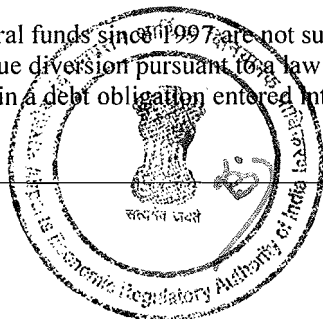
³ The chart does not give the units, but since it is USA data, \$ is assumed)

⁴ Paul Stephen Dempsey 'Theory and Law of Airport Revenue Diversion' (2008) published as part of an Airport Cooperative Research Program project .[Dempsey]

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⁵ *ibid* Dempsey: pp.

Private airports not receiving federal funds since 1997 are not subject to the revenue-diversion prohibition. An exception also exists for revenue diversion pursuant to a law regulating airport financing enacted prior to September 2, 1982, or a covenant in a debt obligation entered into before that date.

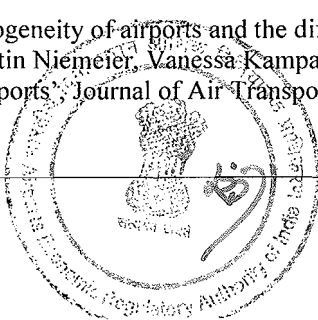


- 5.13. This means that such surplus funds earned as a result of operating on a compensatory basis, will have the effect of reducing the need for borrowing or further federal assistance. Other things being equal, fixing charges on the compensatory basis may have the effect of reducing the debt- interest costs included in the rate base, in the course of time. All in all, all the revenues arising from airport operations (both aeronautical and non aeronautical) are required, in US, to be used for the airport. The Authority notes that similar mechanism is not available in the Indian context
- 5.14. In other words, the revenue diversion prohibition means that the level of charges that an Airport Operator can levy does not systematically increase in the long run as a result of having adopted a compensatory basis and may actually fall, for reasons that do not appear to have an analogy with the dual till approach outside the US.
- 5.15. In Australia, aeronautical charges increased on average by 130% at Sydney airport when it went from setting charges on a single-till to a dual-till basis⁶. The calculations made by the Authority in respect of two Indian airports (Ahmadabad and Trivandrum) clearly showed that under single till approach, the User Development fee was lower by 40%-45% as compared to 30% hybrid till approach. According to the review made by Jaap de Wit ("Privatization and Regulation of Amsterdam Airport" Ch 6 pp 95 in "Economic Regulation of Airports" Ed Peter Forsyth et al, Ashgate 2004), *"According to NMA (2001) (Dutch Competiton Authority), an interval of 6.5-9.2% for the overall WACC before tax is reasonable, as is an aviation specific WACC of 7.9%. The contrast between the consequences of a dual till and a single till is clear: a dual till requires a substantial increase in airport charges to boost the aviation Return on Net Assets (RONA) from 5.9 to 7.9%. A single till, however, allows for a substantial reduction in airport charges as long as the overall RONA remains in the range 6.5-9.2%"*
- 5.16. The Authority also recognises that there are many and complex factors that affect airport charge levels and that airports are highly heterogeneous businesses⁷. For all these reasons, it is unsafe to draw any firm conclusions about the dual till from comparisons of levels of charges at US airports, or for that matter across different airports.

Single till is contrary to ICAO principle of cost relatedness.

⁶ International Civil Aviation Organisation (2008) Case study: Australia, www.icao.int/icao/en/atb/epm/CaseStudy_Australia.pdf

⁷ A recent paper discussing the heterogeneity of airports and the difficulties in drawing comparisons between them is Annika Reinhold, Hans-Martin Niemeier, Vanessa Kampa, Jürgen Müller, 'An evaluation of yardstick regulation for European airports', *Journal of Air Transport Management* 16 (2010) 74–80



- 5.17. This appears not to be the case. As the Authority noted in its White Paper, the current ICAO airport charging policy⁸ specifies the costs of an airport that should be charged to airport users, explicitly including therein contributions from non aeronautical revenues.
- 5.18. It is important to recognize the context in which ICAO uses the terms “cost relatedness” and the related concept of “cross subsidy”. ICAO speaks of cost relatedness in the context of charges for aeronautical or regulated services. This implies that according to ICAO guidelines, one regulated service should not be cross subsidized from other regulated service. It is important to bear in mind that ICAO does not use the term “cross subsidy” in the context of surpluses from non aeronautical revenues to be used to moderate charges for aeronautical services. In fact as subsequently discussed, ICAO encourages contribution from non aeronautical revenues towards aeronautical charges.
- 5.19. Regarding cost relatedness, ICAO clearly states that non aeronautical revenues are generated by passengers and hence they should benefit from the non aeronautical surpluses.
- 5.20. For sake of clarity, the relevant portion of Para 30 of ICAO Doc 9082/8, (2009) is reproduced below:

30. The Council also states that in determining the cost basis for airport charges the following principles should be applied:

*(i) The cost to be shared is the full cost of providing the airport and its essential ancillary services, including appropriate amounts for cost of capital and depreciation of assets, as well as the costs of maintenance, operation, management and administration, but allowing for all aeronautical revenues plus **contributions from non aeronautical revenues accruing from the operation of the airport to its operators** (Emphasis added)*

- 5.21. Authority thus notes that ICAO’s guidelines speak of “contributions from non aeronautical revenues accruing from the operation of the airport to its operators”. Common reading of these words would indicate that whatever contributions from non aeronautical revenues accrue to the Airport Operators should be taken into account for determination of aeronautical charges.
- 5.22. These guidelines make reference to ICAO Doc 9562 as under:

“Guidance on accounting contained in the Airport Economics Manual (Doc 9562) may be found useful in this context, although there are other approaches.”

⁸ Refer to ICAO Doc 9082/8, (2009) paragraph 30 www.icao.int



- 5.23. The ICAO Airport Economics Manual provides further guidance on the interpretation of the policy in 9082/8 on page 4-15. There are three pertinent points:

*“Para 1. The existence of air traffic activities is a necessary pre-condition for the generation of airport non aeronautical revenues. Such revenues are, thus, generated through management initiatives in offering suitable products and pricing. All aeronautical and non aeronautical revenues from the operation of an airport accrue, in the first instance, to the airport. **Reaching a common understanding on the contributions of non aeronautical revenues to defray the cost base for charges is an acknowledgement of the partnership between airports and users.** (Emphasis added)”*

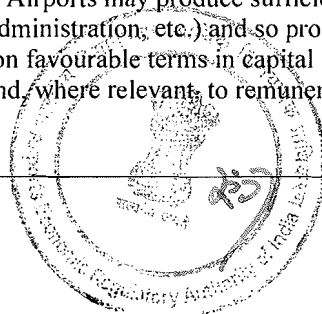
“Para4. When determining contributions from non aeronautical revenues, high priority should be given to the investment needs of airports, taking into account paragraph 24 of Doc 9082/7, which addresses prefunding of projects, while recognizing that there may be many alternatives to finance infrastructure development”.

*“Para7. **As stated in point 4, it may be appropriate for airports to retain non aeronautical revenues rather than use such revenues to defray charges. However, there is no requirement for airports to do so and, in appropriate circumstances, there may be solid grounds for charges to be lower, consistent with Doc 9082/7, paragraph 22 vii.**”¹⁰*

- 5.24. ICAO has, thus, clearly recognized that non aeronautical revenues are generated by passengers. It is also important to note that Para 7, specifically refers to Para 4. Furthermore, the guidance given by ICAO if read into the last sentence of Para 7, indicates its preference for aeronautical charges to be lower. It is, thus, clear from harmonious construction that ICAO guidelines indicate that non aeronautical revenues should be either used for funding investment needs (CAPEX) of aeronautical activities or to defray aeronautical charges.

⁹ Para 24 of Doc 9082/7 states: “The Council considers, notwithstanding the principles of cost-relatedness for charges and of the protection of users from being charged for facilities that do not exist or are not provided (currently or in the future) that, after having allowed for possible contributions from non aeronautical revenues, pre-funding of projects may be accepted in specific circumstances where this is the most appropriate means of financing long-term, large-scale investment, provided that strict safeguards are in place” It then proceeds to give a list of these safeguards. The above formulation indicates that if there is any contribution possible from non aeronautical revenues, then pre-funding (which in the Indian context is equivalent to ADF) should not be resorted to.

¹⁰ Para 22(ii) of Doc 9082/7 states: “Airports may produce sufficient revenues to exceed all direct and indirect operating costs (including general administration, etc.) and so provide for a reasonable return on assets at a sufficient level to secure financing on favourable terms in capital markets for the purpose of investing in new or expanded airport infrastructure and, where relevant, to remunerate adequately holders of airport equity”



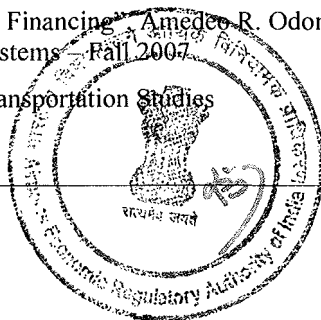
- 5.25. The Authority also notes that Single-till regulation is still quite prevalent in Europe and 13 of the top 20 airports in the EU are single-till (accounting for 72% of the combined traffic at these airports)¹¹ It is also practiced in South African system of airports. A survey in Europe for Airports Council International (ACI) found that 42% of airports adopted a single-till approach while 29% adopted a dual-till approach (the remaining airports were described as using a hybrid approach)¹². Though the US system is different in terms of ownership and operation (its airports and air traffic control systems are publicly owned and operated), of the 134 busiest airports in US: 22% are on Residual (Cost-plus, single-till system with a difference), 28% on Compensatory (Cost-plus, dual till) and 50% on hybrid. Furthermore, 43% have majority-in interest clause (Odoni, MIT 2007)¹³.
- 5.26. Finally, the Authority has noted the writings of experts in Aviation Economics and Regulation in academic literature, in so far their interpretation of ICAO guidelines is concerned. Though these authorities tend to favour dual till approach on considerations indicated in their writings, they appear to be unanimous in the view that “ICAO recommends single till”
- 5.27. For example, David Gillen and Hans-Martin Niemeier writing in “Comparative Political Economy of Airport Infrastructure in the European Union: Evolution of Privatization, Regulation and Slot Reform¹⁴” (2007) say about ICAO and single till: “*The single till principle was recommended by ICAO and has been widely used in Europe, but this long tradition is slowly breaking down (Para 4 at page 7).*” Same statement occurs in “Regulation of Large Airports: Status Quo and Options for Reform” by Hans-Martin NIEMEIER (Para 5.2 at page 18 of Discussion Paper No. 2009-10, May 2009, in JOINT TRANSPORT RESEARCH CENTRE of OECD and International Transport Forum).

¹¹ “Flying high: A review of airport regulation in Australia” April 2010, Infrastructure Research Note, Colonial First State, Global Asset Management, available at: <http://www.firststate.co.uk/uploadedFiles/CFSGAM/PdfResearch/100430%20Aust%20Airport%20Regulation.pdf>

¹² Page 32, SH&E (2007) “Capital Needs and Regulatory Oversight Arrangements: a Survey of European Airports,” www.aci-europe.org. Quoted in “Defining the Regulatory Till”, Commission for Aviation Regulation, Commission Paper 4/2010; 30 November 2010, Para 2.2

¹³ “Economic Regulation and Capital Financing” Amedeo R. Odoni, Massachusetts Institute of Technology, 1.231J/16.781J/ESD.224J Airport Systems – Fall 2007

¹⁴ Copyright © 2007 by Centre for Transportation Studies



5.28. Similarly, David Gillen of Sauder School of Business, Director, Centre for Transportation Studies, University of British Columbia, Vancouver Canada writing in Oct 2008, in identical vein had the following comment to make¹⁵:

“The single till principle was recommended by the International Civil Aviation Organization and has been widely used in Europe, but this long tradition is slowly breaking down”.

5.29. In another paper by Rui Cunha Marques and Ana Brochado¹⁶, it is mentioned that *“the single-till approach is widely used and its main advantages are to minimize the airport charges and to keep with the international recommendations (e.g., International Civil Aviation Organization—ICAO)”*

5.30. On the other hand, according to a recent review of the new European Airport Charges Directive “Airport Regulation: Does a mature industry need mature regulation? A review of the new European Airport Charges Directive¹⁷” it is mentioned that: *“The ICAO statement, in version after version has been equivocal in this issue and, well within their rights, the airports have ensured that in Europe, the hard law is silent on the business model that the airport chooses to use. That means that it does not rule either version out.”*

5.31. The EU “DIRECTIVE 2009/12/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 March 2009 on airport charges” mentions, inter alia, *“Such a framework should be without prejudice to the possibility for a Member State to determine if and to what extent revenues from an airport’s commercial activities may be taken into account in establishing airport charges”*. According to NERA, (20 January 2009) on “The EU Directive on Airport Charges: Principles, Current Situation, and Developments” by Francesco Lo Passo and David Matthew, *“The Directive does not prescribe the basis on which airport charges should be set, and it explicitly leaves open key issues such as the regulatory till.”*¹⁸ The Authority has also been informed by a recent report of a panel that was established in UK (April 2008, under the Chairmanship of Prof Martin Caves and Ms Anne Graham, Prof. Dieter Helm,

¹⁵ “Airport Governance and Regulation: the Evolution over Three Decades of Aviation System Reform”, Paper prepared for Madrid Workshop on Transport Economics, ‘Models of Airport Ownership and Governance’. Madrid, October 10, 2008

¹⁶ Airport regulation in Europe: Is there need for a European Observatory? Feb 2008. The authors review some of the findings of Beesley and Starkie and comment on the same.

¹⁷ “Airport Regulation: Does a mature industry need mature regulation?”, Feb 2008 by Andrew Charlton of Aviation Advocacy, Switzerland at url: http://www.hamburg-aviation-conference.de/pdf/present2008/01_Session_VII_Andrew_Charlton_Aviation_Advocacy.pdf

¹⁸ EU Directive on airport charges was approved by the European Parliament on 23 October 2008. The EU Directive on Airport Charges was adopted by the Council of Ministers on 19 February 2009. Entry into force in EU Member States will take place in early 2011. NERA comments available at: http://www.nera.com/extImage/PUB_EU_Airports_Directives_0109.pdf



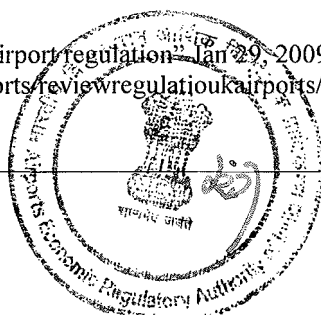
Prof. Andrew Sentence as some of its other members) to advise the Secretary of State for Transport on the reform of the economic regulation of airports in the UK. It gave its report on 27th Jan 2009¹⁹. The panel in its final report stated, inter alia, that ***“the choice of the till is better left to the regulator to decide”*** (Emphasis Added).

- 5.32. In sum, the Authority has found that single till is recommended or supported by ICAO; that no definitive position for or against any form of regulatory till is available on this issue in the EU directives; and that expert panel in UK has felt that the choice of regulatory till is best left to the regulator to decide.

The single till represents cross-subsidy and distorts pricing signals to users and investment decisions by the airport.

- 5.33. As mentioned elsewhere, some of the stakeholders have stated that “Comparisons of charges at different airports do not support the assertion that single till leads to lower tariffs”, an observation which is contrary to the above assertion that single till represents cross-subsidy. At any rate, the Authority recognises that aeronautical services are distinct from other commercial services, such as retail outlets among others, provided at an airport. At the same time such services are interdependent; have a common customer base; rely on many of the same facilities; and they have common costs. The economic perspective inherent in the argument is that the pricing of such services should reflect the respective costs. To do otherwise would be tantamount to creating a cross-subsidy, distorting prices, thus distorting the behaviour of both supply and demand.
- 5.34. While this economic perspective may be theoretically sound per se, its application in a situation in which activities are interdependent, is not straightforward. Costs solely attributable to either aeronautical services or non aeronautical services, not benefiting each other, may be relatively small, leaving much of the cost base (and the asset base) as shared or common, in economic terms. It would be possible to adopt an allocation methodology, but any conventional accounting allocation basis is liable to be arbitrary and not bring economically efficient results, as also highlighted in Paragraph 5.104 hereinbelow.
- 5.35. The best evidence of an efficient result can be found in a well functioning competitive market.
- 5.36. The Authority made a similar point in respect of airports in a competitive market in paragraph 2.33 in Part II of the Consultation Paper. It indicates that profit maximisation by market participants would lead to a market price

¹⁹ “Report of the independent panel on airport regulation – Jan 29, 2009. Available at: <http://www.dft.gov.uk/pgr/aviation/airports/reviewregulationukairports/independentpanelreport.pdf>

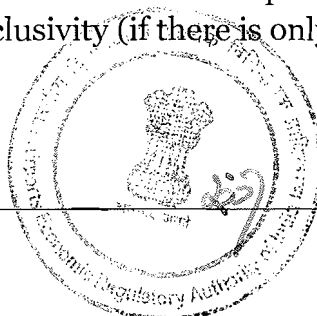


for aeronautical services, such that the marginal revenues for each additional passenger (or aircraft movement), taking airports' revenues as a whole, would broadly equate to marginal costs. Opportunities to make more efficient use of airport facilities by developing their commercial potential would lead, through airports competing with each other, to lower airport charges and more customers. An airport in such a market would effectively be functioning on a single till basis. It seems evident that commercial revenues are indeed used in such a way to keep aeronautical charges down in markets where airports do compete at a local level, for example in some markets in Europe.

- 5.37. These interactions in well functioning competitive markets could be called cross subsidies, as measured against conventional accounting allocation methods, or could be considered analogous to an economically efficient allocation of a wide definition of common costs. Either way, the analysis leads to the same answer: a single till approach does not by itself lead to an inefficient pricing structure. By contrast, a dual till approach may fail to reflect the outcomes that could be reasonably expected in a competitive market.
- 5.38. Coming to the recent EU position enunciated in its, DIRECTIVE 2009/12/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 March 2009 on airport charges, "*The Member States may allow the airport managing body of an airport network to introduce a common and transparent airport charging system to cover the airport network*". It would appear that EU recognizes even the need to cross subsidise different airports within an airport network.
- 5.39. As regards investment decisions in airport infrastructure in single till, the issue has been discussed in paragraph 5.65 hereinbelow.

The single till is analogous to a school charging an ice cream seller who has positioned his cart in front of the school to sell his wares.

- 5.40. The analogy is a useful one. Under the single till approach, an ice cream seller setting his cart outside the school would be competing at a level playing field with other potential ice cream sellers who could set up their shop nearby. Secondly, it may not be the case that the sale of his ice cream is predominantly to the school children. The school would have no power to stop him selling ice cream and no reason to charge him, nor would he have any reason to pay. However, if an ice cream seller were to negotiate an agreement with the school to locate his cart inside the school boundary, say, in the playground, thereby giving him a locational advantage over the other ice cream sellers located outside the school, then the school would be perfectly justified in negotiating a charge for that right or exclusivity (if there is only one seller).



5.41. This aspect also brings in the issue of locational versus monopoly rents accruing to the airport. In academic literature, it is emphasized that only monopoly rents should be subjected to regulation and not locational rents. Non aeronautical activities are generally considered as “locational” rents and hence not to be subjected to regulation and therefore kept outside regulatory till (in dual till approach). The Authority has benefited from the excellent discussion on these issues in an article by Peter Forsyth “Locational and monopoly rents at airports: creating them and shifting them”, Journal of Air Transport Management 10 (2004) 51-60. The Authority notes that it is recognized that inter alia, “it is not always easy to distinguish between the two sources of rent” (i.e. locational and monopoly rents). The Authority also notes that “ownership of all of the surrounding land... More seriously, it gives the airport more market power, and the ability to restrict development to increase its monopoly rents. The airport would have a monopoly of the off airport surrounding land on which competing hotels car parks and other facilities would be built...”

5.42. The Authority also notes that according to Hans-Martin NIEMEIER, University of Applied Sciences, Bremen, Germany (writing in “Effective regulatory institutions for air transport: a European perspective”, Discussion Paper 20 of 2010 of Joint Transport Research Centre Round Table Dec 2-3, 2010 at Paris),

Graham (2008) differentiates between concession contracts, management contracts and joint venture arrangements. This shows that many of these services involve specific investments, but there is little evidence for market failure (see below). An exception might be car parking, which generally is very profitable and airports located in cities with poor public transport might have gained substantial market power. (Emphasis added)

5.43. Finally, the Authority is aware of the Australian Competition and Consumer Commission's (ACCC) Airport Monitoring Report, (2008-09) released in March 2010 which came to the conclusion that car parking prices at all monitored airports “are consistent with charges reflecting an element of monopoly rent.” Its key findings are:

5.43.1. In 2008–09 and more recently, at least some car parking charges increased at all the airports.

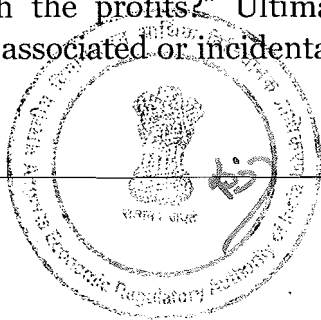
5.43.2. The ACCC maintains its view that airport car parking prices charged to consumers are consistent with charges reflecting an element of monopoly rent.



- 5.43.3. Airports are in a position to set car parking prices above an efficient level by controlling the conditions of landside access to terminal facilities.
- 5.43.4. The ACCC has observed that some airports have affected the conditions for which alternatives to on-airport parking operate.
- 5.44. After taking into account all the relevant material and factors, the Authority finds that in the Indian context, single till best captures ground realities and is best suited for India.

If airlines bring passengers to the airport means they should participate in commercial revenues that result, then airports should also participate in the ticket and in-flight revenues of airlines.

- 5.45. Airlines provide in-flight services as an integral part of their passenger-carrying business and, presumably, aim to earn profit from their in-flight services. However, airlines generally operate in a competitive environment. It is a generally accepted principle that market is the best regulator. Telecom Regulatory Authority of India (TRAI), thus, does not regulate the telephone charges which are under what is called "forbearance". Likewise the air tickets are not regulated. This means that, although the first airline to offer in-flight services might have initially benefited from its innovation, its advantage may soon dilute when other airlines introduce in-flight services. The extra profits will also help them compete more effectively by reducing ticket prices or improving service levels. In other words, the consumers ultimately receive the benefit of profits from such additional activities such as in flight services. Thus an airline, essentially in the role of a supplier, cannot expect to sustain an above-normal level of profits (e.g. by retaining profits from in-flight services), except by continuous innovations and improvements to outperform its competitors.
- 5.46. Similarly, an airport would use profits from non aeronautical activities to help it compete more effectively for customers, by reducing airport charges or improving service levels when operating in a competitive environment or in a regulatory environment that attempts to simulate the effects of a competitive environment. In the case of an airline, as the party required to pay airport charges, it would be reasonable to expect that a reduction in airport charges would lead to a reduction in the price of airline tickets, because it operates in a competitive environment.
- 5.47. It is not a question of "who's customers are they?" or "should airports or airlines be credited with the profits?" Ultimate customers should benefit similarly from profits on associated or incidental services at both airports and airlines.



There is absolutely no evidence that the airlines are passing the savings from lower aeronautical charges on to the passengers through lower fares.

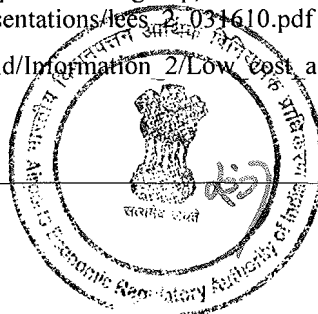
- 5.48. At the outset and specifically in the Indian context, to the extent passengers are required to pay UDF (or for that matter DF or PSF), bringing in the entire contribution of non aeronautical charges in aeronautical tariff determination, will directly reduce (and that too proportionately) these charges that directly impinge on the passengers. Hence single till ensures that the burden on the passengers of such charges is reduced.
- 5.49. Figures are quoted by ACI about the airport charges being only 4% of the operating costs of the airlines (and hence not significant) and that too having remained more or less constant for the last so many years. IATA, on the other hand, puts this figure at 11%. Some of the analysis show that for the Low Cost Carriers, this figure may be much higher 11% to 21% of total costs and 15% to 32% of Direct Operating Costs²⁰, According to an article titled “Low Cost Airlines in Europe” based on a study on low cost carriers in Europe carried out by Bernd Hahn and published in: Wuppertal Papers, No. 159 - July 2006, the airport costs for LCC make up for a higher fraction of the total costs of an airline, for example for 2004: 147 million EUR for Ryan air (18% of all costs), 448 million EUR for Easy Jet (33.6% of all costs)²¹. The percentage of airport charges in LCC’s operating costs is important form point of view of LCC’s exerting effective competitive downward pressures on airline tickets.
- 5.50. If airlines are operating in a broadly competitive environment, conventional economic analysis would indicate that lower aeronautical charges will be passed on to passengers. Competitive prices will settle at the level where airlines’ marginal costs and airlines’ marginal revenues are broadly in equilibrium. Since lower aeronautical charges will have a direct impact on marginal costs, airline prices would be expected to respond commensurately.

The single till is ineffective for congested airports and it would not be sensible to constrain airports to the minimum sustainable pricing level (single till) under the conditions of capacity constraint experienced at some Indian airports.

- 5.51. The Authority acknowledged in paragraph 2.14 in part II of the Consultation Paper that the competition analogy for pricing efficiency breaks down, when a regulated airport is operating under a persistent capacity constraint, such that

²⁰ Presentation on Mar 16, 2010 titled “AIRLINE START UP AID AND EU REGULATION, in ACI Europe’s Small and Medium size airports action group, Eliot Lees, Vice President, Airport Business Strategy, SH&E, at: http://www.sh-e.com/presentations/lees_2_031610.pdf

²¹ http://www.atmosphere.mpg.de/enid/Information_2/Low_cost_airlines_-_development_61i.html by Elmar Uherek

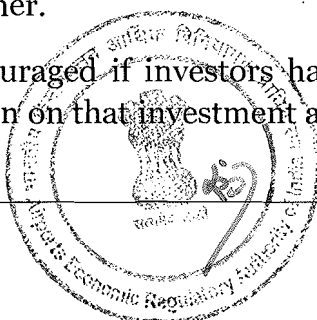


regulated prices are lower than market clearing prices. Such a situation would create detrimental pricing distortions, but this is because market clearing prices are not cost-related – they are instead the price at which demand is held to the physical capacity constraint, irrespective of costs. In that situation, any cost-related basis for setting prices, whether single till, dual till or any other basis will generate the incorrect answer.

- 5.52. The Authority is alive to the potential for this issue to arise at some Indian airports in the future. However, it also recognises a moral hazard in any suggestion that capacity constraint could prompt the regulator to raise the price cap –its unintended consequence could be to encourage Airport Operators deliberately to engineer capacity constraints to reap the economic benefits of a more relaxed pricing regime.
- 5.53. Where it is possible, avoiding the situation where airports are operating under persistent capacity constraints would appear to be central to the Authority's mandated objectives. Therefore, the Authority will give importance to the need to incentivise timely and efficient investment and to commit to a continuation of a pricing regime even if capacity constraints do arise.
- 5.54. As indicated in paragraph 2.19 in part II of the Consultation Paper, the Authority considers that a well designed single till regime, that offers a fair return on investment in airport facilities reinforced by other incentives to ensure that the investments are well directed, will give it the tool to incentivise timely and efficient investment. The Authority is cognizant of the importance of this objective.

Holding prices below full cost has served to exacerbate significant congestion issues.

- 5.55. The single till does not hold prices below full cost, but it does recognise commercial revenues arising from the ownership of airport facilities as an integral part of the net cost of operating and financing those facilities. Conversely dual till may not, ipso facto, lead to expansion of aeronautical facilities in the absence of a mechanism that surpluses from non aeronautical activities would be used only for aeronautical facilities.
- 5.56. Congestion issues could be exacerbated by a combination of factors, such as low airline ticket prices that encourages more passengers to use the airport and by airports not investing in creating capacity to handle the additional passengers in a timely manner. The relevant question for the Authority is whether the regime encourages investment needed to handle anticipated demand in a timely manner.
- 5.57. Investment will be encouraged if investors have reasonable confidence that they will earn a fair return on that investment and especially if there is a scope

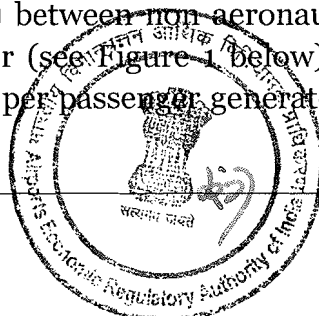


to earn higher returns consequent to good performance. As discussed in Part II of the Consultation Paper, notably paragraph 2.19, a combination of a secure RAB; the allowance of a Fair Rate of Return; a consultative relationship with airport users; and an incentive-based regime will ensure that the necessary investments are encouraged in a timely manner.

- 5.58. It is incorrect to suggest that investors will require super normal levels of returns (that is, the level of return that can possibly be earned by an Airport Operator if it was able to retain profits from commercial activities) in order to avoid investment shortfalls. By definition, a Fair Rate of Return is the rate of return necessary to encourage investment. It will be the responsibility of the Authority to determine a Fair Rate of Return to encourage timely investment such that investors are not required to earn more than the Fair Rate of Return.

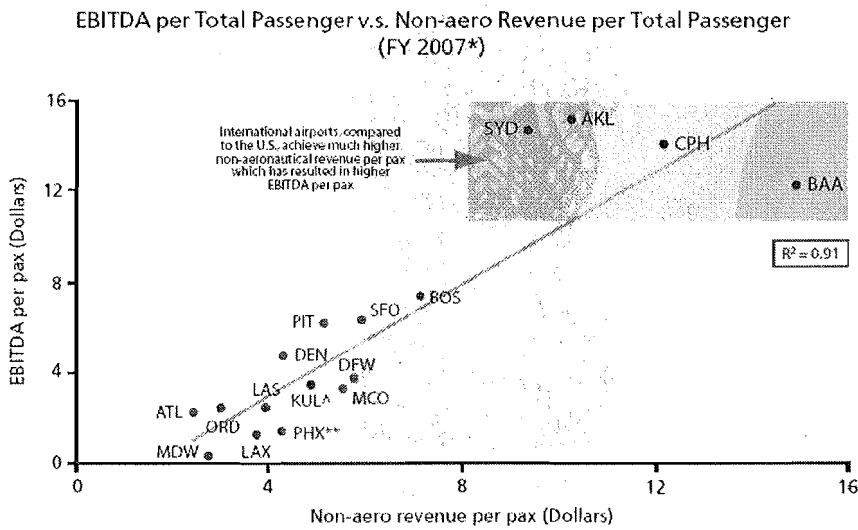
The objectives of Government policy on airport infrastructure imply a sustained and positive policy towards investment and financing capacity and dual till would send the right signal.

- 5.59. Under the Act, the Authority is mandated to take in to consideration “viable and efficient operation of airports” which implies a requirement to give a “Fair Rate of Return” to the investor. If worked out in a reasonable manner and consistent with the risk profile of the airport business, this should be adequate to induce investors to be attracted to the airport sector. Since the discussion is regarding till, it would presumably mean that there is an apprehension that investors will not be rewarded by a Fair Rate of Return in single till and that dual or hybrid till will so reward them.
- 5.60. Airport Operators have, from time to time, focussed on the need to have the possibility of an “upswing” in non aeronautical revenues to give them a chance of taking on and compensating for what they perceive as “risk” in the aeronautical business. The risk in airport business appears to be tied up not so much to the aeronautical part but to the non aeronautical part and there also to the pure real estate development. The asset β for aeronautical assets is normally less than 1 (the Authority is informed that it is in the range of 0.7 to 0.85). To the extent non aeronautical revenue is generated through conventional non aeronautical activities like food and beverages, duty free shopping, office space for airlines etc (all of these are generally within the terminal building) as well as car parking, advertising etc (generally outside but in fairly close proximity with the terminal building), there seems to be a strong correlation between passenger traffic and non aeronautical revenues.
- 5.61. Research by L.E.K. Consulting has found that there is a direct and positive relationship ($R^2=0.91$) between non aeronautical revenue per passenger and EBITDA per passenger (see Figure 1 below). Airports that drive higher non aeronautical revenues per passenger generate more profits than those that do



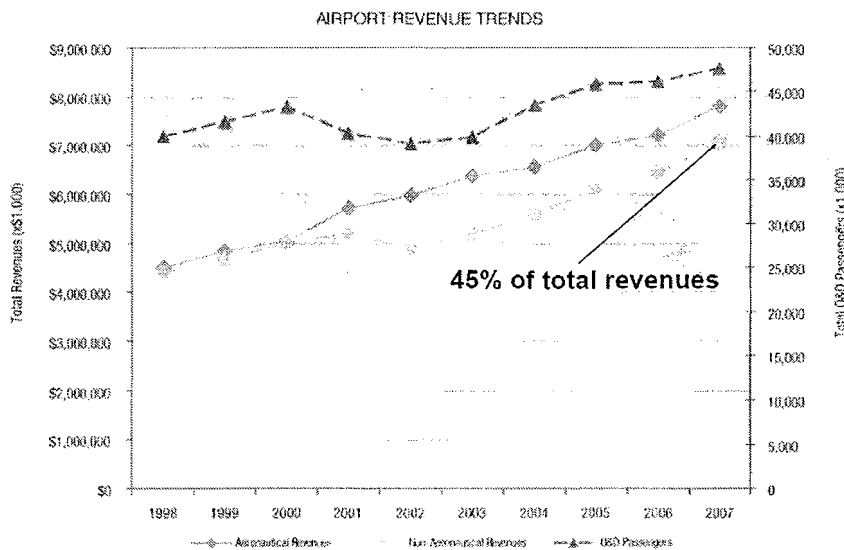
not²². Jacobs Consulting also has analysed the airport revenue trends (see Figure 2 below). They found that there is a strong correlation between non aeronautical revenues and total originating and departing passengers²³. Hence the “riskiness” in non aeronautical activities tied up to passengers may not be higher than the airport activity itself. Such riskiness should then be captured by the normal β calculations.

Figure 1: Correlating EBIDTA with non aeronautical revenue per pax



Note: * Financial year periods differ by airport for EBITDA calculation; EBITDA includes aero and non-aero revenues;
 ** PHX also includes data for the smaller Deer Valley and Goodyear airports; ** Malaysia Airport Holding BHD includes all airports in the country
 Source: Airport annual reports; ARN 2008 Fact Book; FAA CATS 127

Figure 2: Correlating Airport Revenues with PAX



²² http://www.lek.com/UserFiles/File/Executive_Insights/Volume_XI_Issue_12.pdf

²³ “Challenges and Opportunities in Building Non-Aeronautical Revenue” <http://www.aci-lac.aero/aci/ACI%20LAC/File/Events/Salvador/Presentation%20of%20the%20Speakers/November,%2018th/ALCESTE%20VENTURINI.pdf>



- 5.62. In a discussion paper (Sept 2008, Discussion Paper No. 2008-17 prepared for the Round Table of 2-3 October 2008 on Airline Competition, Systems of Airports and Intermodal Connections), titled "Impacts of Airports on Airline Competition: Focus on Airport Performance and Airport- Airline Vertical Relations" by Tae H. OUM and The Air Transport Research Society (ATRS) and Xiaowen FU 25, one finds the following position:

Overall, single till regulation appears to be superior to other regimes in terms of setting appropriate prices. The notion of regulating only the monopoly services (aviation services) is appealing in theory. However, dual-till regulation ignores the economies of scope for airports in providing aviation and concession services jointly. More importantly, dual till regulation does not internalize the demand complementarity between aviation and commercial services. As airlines who bring passengers to the airport may not benefit directly from the concession sales, they may ignore such positive demand externality in their decisions. On the other hand, under a single till regulation, concession revenue may be used to cross subsidize aeronautical charges.

The Authority notes that the Planning Commission has similar views as indicated in paragraph 5.3above.

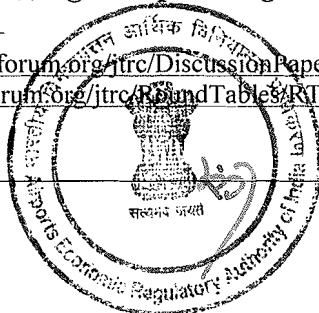
- 5.63. The Authority considers that the best signal for investment in airport services is a commitment to allowing a Fair Rate of Return on appropriate airport investment and a positive approach to profit incentives for good performance.

Private investors will not be attracted sufficiently to the airport sector under a single till regime combined with a price cap which is likely to result in a serious shortfall of airport infrastructure in the next decades.

- 5.64. The policy of the Authority on the Fair Rate of Return will mean that the price cap will be set at a level which remunerates the investment fairly, consistent with the risk profile of asset. This should be a sufficient incentive to private investors.

- 5.65. It will be instructive to note that the airports (both public and private), operating under a single till regulatory regime, have not been constrained from making large capital investments. In this regard, the example of privatized BAA making a massive investment of £4.3 billion in constructing T5 at Heathrow Airport, despite operating under single till, is pertinent. The public entities such as Dublin Airport Authority (DAA) and Airports Company of South Africa (ACSA), again operating under single till, have also invested

²⁵<http://www.internationaltransportforum.org/jtrc/DiscussionPapers/DP200817.pdf> see also presentation at: <http://www.internationaltransportforum.org/jtrc/RoundTables/RTOct08Oum.pdf>



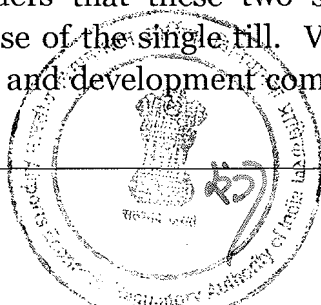
very large sums in airport development-DAA has invested €600 million in T2 at Dublin airport while ACSA has invested Rand 24 billion (US\$ 3.5 billion) in past three years in South African Airports including construction of a Greenfield airport at La Mercy and Central Terminal Building at OR Tambo International Airport, Johannesburg. Thus, in the opinion of the Authority, it is the rate of return on investment which is determinative of investment, whether public or private, and not the regulatory till.

For potential investors in a private concession, a single till system will leave no opportunities for value maximization for the bidders as the entire risks and returns are capped at an overall level. In such a system, bidders who have the skills to deliver on the commercial objectives of privatisation and efficient management of the airport will lose interest, as they would be treated at par with bidders with only technical and design skills.

- 5.66. This response misreads the incentive-based rationale for price cap regulation that has operated successfully across privatised infrastructure sectors in many countries since the 1980s. The purpose of the incentive regime is precisely to provide investors with opportunities for value maximisation through efficient management of the airports. The Authority's approach will be to cap the prices being set by the Airport Operator so as to give him Fair Rate of Return consistent with the risk profile of the airport. As discussed hereinafter, the Authority is putting in place a mechanism to minimise the risk associated with airport operations for example risks associated with traffic forecast.
- 5.67. The implication is that an Airport Operator will have the incentives to build up the airport as an attractive place for airlines and others to do business and for passengers to travel to and from. This should act as a catalyst for growth, foreign investment and further employment opportunities.

Government policy identifies advantages of commercial revenues for internal financing of investment.

- 5.68. The Government of India policy on 'Airport Infrastructure of India' noted that the optimal exploitation of the full commercial potential of airports will make airports not only viable but capable of generating surpluses for further expansion and development.
- 5.69. It further indicated that "there will be total freedom for Airport Operator in the matter of raising revenue through non aeronautical charges and there will not be any Government control over the same".
- 5.70. The Authority considers that these two statements read together do not militate against the use of the single till. Viability and the surpluses needed for further expansion and development come from the ability of an airport to



make a Fair Rate of Return on its investments. A properly implemented single till provides precisely this. Implicit in paragraph 5.68 is the assumption that non aeronautical revenues will be used for further expansion of airports. The single till does not imply any regulation or cap on commercial activities or revenues. It only provides an explicit mechanism to achieve the assumption implicit in paragraph 5.68 as mentioned above.

- 5.71. To summarise, the Authority's understanding of the Government's policy statement is that it links the scope for exploiting commercial opportunities with applying surpluses for further expansion and development of the airport. Implied in this, is the recognition that an airport's commercial activities should be used to support airport development.

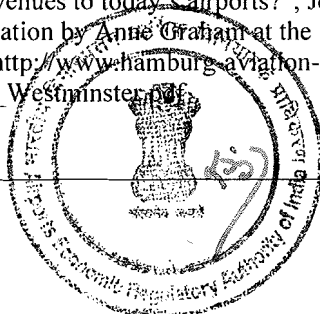
Single till does not incentivise development of non aeronautical revenues. Alternatively, the single till may lead an airport to maximize non aeronautical revenues aggressively beyond the 'fallout' of the single till, making non aeronautical investment at the expense of aeronautical investment and service quality.

- 5.72. These are extreme arguments and neither of the statements may be true.
- 5.73. The Authority noted in the Consultation Paper that the inherent price cap incentives under the single till encourage the development of non aeronautical revenues, in both the investment programme and in ongoing airport management. As has been pointed out by Hans-Martin NIEMEIER, University of Applied Sciences, Bremen, Germany (writing in "Effective regulatory institutions for air transport: a European perspective", Discussion Paper 20 of 2010 of Joint Transport Research Centre Round Table Dec 2-3, 2010 at Paris),

In the last 20 years airports have developed their non aeronautical business on a large scale. The share of non aeronautical revenues has risen up to fifty per cent of total revenues at some airports (Managing Airports, Anne Graham, 2008). This growth has happened although most of these airports are subject to a single till regulation, which indirectly taxes these activities. Furthermore, airports have voluntarily restricted their prices on non-aviation products and services to a high street level

- 5.74. Recent (2009) analysis by Prof Anne Graham²⁶ shows that all of the top five airports with highest percentage of non aeronautical revenues are on single

²⁶ "How important are commercial revenues to today's airports?", Journal of Air Transport Management 15 (2009) 106-111. Also see the presentation by Anne Graham at the Hamburg Aviation Conference in Feb 2008 and presentation is available at: http://www.hamburg-aviation-conference.de/pdf/present2008/01_Session-I_Dr_Anne_Graham_University_of_Westminster.pdf

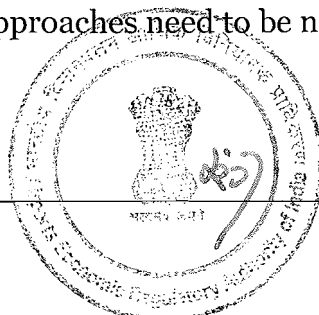


till. Not only that, single till does not seem to have hindered the BAA in investing in non aeronautical development. For example at BAA airports, the retail space has been expanded significantly from 40,000 m²(in 1990) to over 100,000 m² now (excluding terminal 5 at Heathrow). This growth in space has been faster than the corresponding rise in passenger numbers. Further, in the new T2 at Dublin Airport, the Dublin Airports Authority (DAA) has provided for retail space which is estimated to be 40% greater than the international and European averages. Thus the assertion that the single till approach restricts investment in the non aeronautical side of the business does not seem to be based on any factual analysis of data.

- 5.75. Furthermore, it is possible to explicitly incentivise non aeronautical revenue within the framework of single till and price cap approach. Importantly, under the single till, incentives in relation to non aeronautical revenues are in balance with other incentives, such that there is incentive to make savings in operation and maintenance expenditures but not at the expense of service quality. The regulatory regime proposed by the Authority would specifically disincentivise lowering of service quality in as much as in such a case rebates on the tariffs would be imposed. Further, the Authority notes that there is little evidence in regulated sectors that regulated businesses do not respond to the composite scheme of incentives inherent in 5-year price cap regime.

Under a dual or hybrid till, an airport's incentives to identify improvements in non aeronautical operating and investment costs often brings down the aeronautical cost base as well.

- 5.76. This is an important point but have some implicit assumptions. It is assumed that the measures aimed primarily at reducing non aeronautical costs will have salutary effect on aeronautical costs. The relationship of these two costs could be tenuous and may not have one-to-one correspondence. Secondly, the issue need to be balanced with other considerations.
- 5.77. Under a dual till, an Airport Operator has incentive to keep non aeronautical costs low. Although the incentives are not entirely in balance and an Airport Operator would have greater incentive to keep low the non aeronautical costs rather than aeronautical costs. To the extent that the costs are allocations of common costs, it could help augment the incentives the Airport Operator has for aeronautical costs too. This may particularly be the case for longer term investment planning decisions, where till-based regulation relies on the user consultation process to encourage optimum outcomes.
- 5.78. As against the aforesaid proposition, however, two other consequences of dual till or hybrid till approaches need to be noticed.



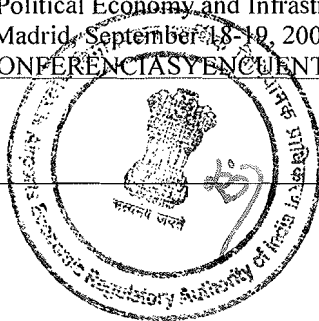
- 5.79. The first is dependence on methodologies and exercise of discretion in the allocation of costs and assets between aeronautical and non aeronautical tills. The Airport Operator would have an incentive to structure its investment and operating decisions to minimise the allocation of costs to non aeronautical till, which could lead to overall inefficiency that may result in low non aeronautical allocations of costs.
- 5.80. The second is the effect of incentives being out of balance. In making investment, operating and other business decisions, an Airport Operator could be more strongly encouraged to pursue options that bring benefit from non aeronautical sources. Therefore, an Airport Operator may not necessarily choose options that bring the best overall benefits, while considering aeronautical and non aeronautical sources together. This could be the cause for inefficiency.
- 5.81. It is, thus, not clear whether the potential advantage in using a dual till or hybrid till, highlighted in this response, could be more than offset by the distortions caused by unbalanced incentives and allocation methodologies.

Single-till may lead to the 'gold-plating' of investments.

- 5.82. As pointed out by a respondent, 'gold – plating of investment' is sometimes referred to as the Averch-Johnson Effect and concern regulation based on rate of return approach. Economists Harvey Averch and Leland L Johnson demonstrated that a regulated firm that is subject to a rate of return based regime *"has an incentive to substitute between factors [of production] in an uneconomic fashion that is difficult for the regulatory agency to detect"*²⁷. *Perhaps, the most important aspect of this 'Effect' would be the incentive "to acquire additional capital if the allowable rate of return exceeds the [actual] cost of capital"*.
- 5.83. The Authority is aware that this is a potential issue in any regulated business where revenues are set in reference to the cost of capital on an asset base. It is, however, a problem that applies both to single till and dual till regimes. For example, Peter Forsyth (Department of Economics, Monash University, Clayton, Vic, 3800 Australia), writing in "Airport Policy in Australia and New Zealand: Privatisation, Light Handed Regulation and Performance"²⁸ notes that *"However, there is some evidence that investment in airports in the two countries may have been too much rather than too little"* (Page 8 of the

²⁷ H Averch and L Johnson, 1962, 'The Behaviour of the Firm under Regulatory Constraint', American Economic Review, page 1068

²⁸ Paper for Conference "Comparative Political Economy and Infrastructure Performance: the Case of Airports", Fundacion Rafael del Pino, Madrid, September 18-19, 2006 available at: <http://www.frdelpino.es/documentos/CONFERENCIASYENCUENTROS/Reuniones%20de%20expertos/Aerpuertos/Madrid06%20Forsyth.pdf>

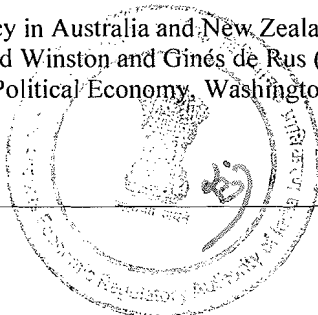


Report). He further says that: "Airports in the two countries do possess market power, and the use of countervailing power by airlines, or commercial negotiations, is not strong enough to eliminate this market power..... In a review/sanction model of light handed regulation, it is not clear what pressures there are to ensure that airports only undertake efficient investments. Given the likely cost based justification for investments which are associated with price rises, and the absence of any scrutiny of proposals, there is a danger of excessive investment." (Page 34 of the report).

- 5.84. In one of the more recent (9th Oct 2010) paper titled "Australian Airport Regulation: exploring the frontier", Stephen C Littlechild Emeritus Professor, University of Birmingham, and Fellow, Judge Business School, University of Cambridge (also former UK Electricity regulator) states "In a series of papers, Forsyth (2004²⁹, 2008³⁰) has expressed concern that a light-handed approach could lead to distorted investment incentives, and thereby to the inefficiencies of cost-plus regulation. If the efficiency of the investments is not properly assessed, the regime may be conducive to excessive rather than inadequate investment". Prof Littlechild has further quoted Prof Forsyth: "The airports are happy with the investment mechanism, since they can simply raise prices to cover the costs of the investments they make. However, nothing guarantees that the investments they make are warranted. Thus Adelaide airport has just completed construction of a large high-standard terminal.... It also now has the highest charges of any major airport other than Sydney. Was this terminal investment excessive? Ideally the Productivity Commission would examine not only whether the price increases covered the costs of investments, but also whether the investments were warranted. However, such a review would require a large amount of data gathering and analysis, and the Commission review did not undertake such a cost benefit analysis. In short, there is a considerable danger that if airports can always pass through the costs of their investments by raising prices, there will be no check on investment programs, which could lead to a de facto Averch and Johnson world where airports make excessive investments to increase their profitability." (Forsyth 2008 pp. 89-90). Against this observation, Prof Littlechild also juxtaposes the ACCC's observation: "Against this example might be set the ACCC's conjecture (see below) that Sydney Airport might have delayed investment." The Authority notes that these countries have a light handed regulatory approach so

²⁹ "Replacing regulation: airport price monitoring in Australia", in "Economic Regulation of Airports", edited by Forsyth et al (2004), pp. 3-22

³⁰ Forsyth, Peter (2008). — Airport policy in Australia and New Zealand: Privatization, Light-Handed Regulation and Performance, in Clifford Winston and Gines de Rus (eds) Aviation Infrastructure Performance: A Study in Comparative Political Economy. Washington DC: Brookings Institution Press, pp. 65-99.



regulator does not prescribe regulatory till and the Authority is informed that these airports are generally on dual till.

- 5.85. In this view of the matter, the Authority feels that regulatory till is not the cause of gold-plating or the Averch-Johnson effect. Further, the Authority has designed its approach by placing particular focus on the role of user consultation in developing the capital programme, which is likely to minimise the potential problem while maintaining strong incentives to invest.

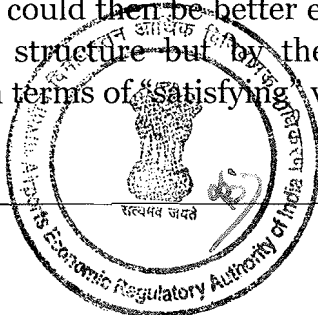
Cash flows which are dependent on the individual decisions of regulators on flexing up the cost of capital at successive reviews are less predictable and therefore less likely to incentivise further investment than [permitting the airport to retain non aeronautical profits].

- 5.86. This is the opposite of the 'gold-plating' problem. It refers to the risk that the Authority may assess the Fair Rate of Return, at a future point in time, at a level lower than the actual Fair Rate of Return at that relevant time. The Authority is alive to the implications of this risk, and is aware that it would directly compromise the regulatory objectives of the Authority related to investment.
- 5.87. Any investment in a regulated business depends on an assessment of the sustainability of the regime, including assessment of rate of return made by the regulator. This is true for any sector in any country. This should also be true for a dual till regime.
- 5.88. If investors can also rely in part on non aeronautical profits to justify investments in aeronautical activities, it may be evidence that the Fair Rate of Return on aeronautical investment (being the return required to encourage investment) can be reduced to a level below the normal risk-adjusted cost of capital (as investors might invest anyway because of the non aeronautical profits that come with it). Alternatively, if investors cannot rely in part on non aeronautical profits to justify investment in aeronautical activities, then they would be just as "dependent on the individual decisions of regulators on flexing up the cost of capital at successive reviews".
- 5.89. Either way, this is not a cogent argument for choosing between single or dual till.

A study shows that single till airports have been worse performers than dual till or hybrid airports. In addition, Heathrow airport, a single till airport, is listed under IATA's Hall of Shame for high charges and poor service quality. The four worst performers are London Heathrow, London Gatwick, Dublin and Paris-CDG.

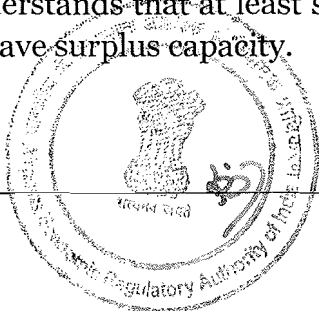


- 5.90. A respondent provided the results of a study it had undertaken to consider the relationship between overall service standards and definition of 'till' for a number of airports, nine of which were regulated under a defined 'till'. The study apparently showed that of the nine examples, the four worst performers are single till while four of the top five performers are dual till or hybrid till.
- 5.91. The study indicated in paragraph 5.90 above also considers the relationship between overall service standards and definition of 'till' for a number of airports. It gives a graph listing 36 airports worldwide. This contains 23 airports about which the respondent says that the till is "indeterminate". It is noteworthy, that out of the top ten airports, 8 are mentioned as "indeterminate till". The respondent then seems to have culled out 9 airports for further analysis to come to the conclusion that "airports operating under Dual Till have rated better on service quality than those operating under Single Till."
- 5.92. The respondent has sought to explain differences in airports only on the instrument of "till". Purely for the limited purpose to demonstrate the dangers in doing so, one may use another characteristic of the airports in terms of "ownership structure". If only this parameter were to be used, then one finds that a majority of these 36 airports are owned by public sector entities. Not only that, if one sees the ranking of SkyTrack as well as ACI regarding the top five airports, in the last three years, with the exception of Hyderabad, all of them happen to be publicly owned.
- 5.93. In a more recent report (ATRS July 23, 2010), airports in Atlanta, Raleigh-Durham, Oslo, Geneva, Hong Kong, and Seoul-Gimpo are tops in their respective continents in efficiency (2009-10), according to the annual Global Airport Benchmarking Report released by the Air Transport Research Society (ATRS). Apart from the US airports, all the other airports are publicly owned. Would it then be correct to infer that public sector owned airports have higher quality of service or efficiency than the privately owned ones? Clearly, this will be an erroneous conclusion.
- 5.94. The problem is attempting to establish a causal relationship with only one variable (regulatory till or ownership structure). Secondly, the Authority assumes that level of service is measured through the ASQ rating. As far as ASQ ratings are concerned, the Authority does not know what benchmark ASQ were prescribed, in respect of the airports cited as worst performer by the respondent, by either the regulator or the airport management and what system of reward and penalties was put in place to achieve the same. The behaviour of the airports could then be better explained not with reference to either till or ownership structure but by the now well known results of behavioural economics in terms of "satisfying" versus "maximizing" behaviour



(bounded rationality versus rational behaviour). In other words, the postulated relationship between level of service and till may not be all that causal.

- 5.95. The truth of the matter is that service quality is affected by many factors, not all of which are avoidable or within the airports' control. They include capacity constraints, often caused by physical or planning limitations, the phases of investment cycles, the rates of growth in passenger numbers and historical investment decisions. They can also change markedly over time as passenger numbers grow, as investment programmes accommodate that growth and as performance management improves.
- 5.96. The Authority is given to understand that one of the most important factors impacting the service quality at these subject airports, is the level of infrastructure capacity. London Heathrow, London Gatwick and Dublin airports have all been subject to significant capacity constraints. In the two London airports, the problem is compounded by severe planning constraints that affect both runways and terminals, especially at Heathrow. But it is clear that Heathrow has been actively investing in world class facilities to help resolve the deficiencies. Heathrow has also invested large sums on its new T5 and is investing in a replacement for T1 and T2. Further, ASQ scores have risen up to 3.89 in Q2 2010 (also in line with the dual till airports of Athens and Amsterdam). All of these investments have been encouraged under the single till.
- 5.97. At the Gatwick airport, the problem appears to be focused on runway capacity, which cannot be increased presently, without relevant permission. Concerns about quality performance at London's airports have led to an increased regulatory focus on performance monitoring, but not to calls for a dual or hybrid till. It appears that the airports are responding to the performance bonus regime operated by the CAA.
- 5.98. Dublin airport has been investing large sums on new infrastructure, notably a new pier and revamped retail areas in the existing terminal and in a large new terminal. Its ASQ scores have been improving and in Q1 2010 the score was 3.86. The ASQ scores are expected to improve further with the opening of T2 in November 2010. The Authority understands that the Dublin airport has been subject to regulatory service performance incentives only in recent years.
- 5.99. Details regarding performance monitoring or incentives for Paris CDG are not available with the Authority.
- 5.100. The Authority also understands that at least some of the well performing dual till airports appear to have surplus capacity.



5.101. It has been argued, as it had been before the UK Competition Commission that the use of a single till has exacerbated the failure of airport companies to overcome the capacity constraints. In that matter, the Competition Commission, after considering these arguments and the evidence presented to it, concluded that *“We have, therefore, seen no evidence of under-investment as a result of the single till: main examples of under-investment quoted to us primarily reflect planning constraints or would not be affected by the dual till”*³¹.

5.102. On the other hand, the Authority notes the findings of the recent Airports Monitoring Survey (2008-09) by the Australian Competition and Consumer Commission (ACCC), released in 11th March 2010. Australia has a light handed regulatory approach. As regards Sydney (dual till), ACCC Chairman Graeme Samuel, said (ACCC News Release)³²,

Airport users, including passengers and airlines, rated Sydney Airport last amongst the monitored airports for the fourth consecutive year and it appears that investment in the international terminal has been slow. And while Sydney Airport was the only airport to report a fall in passenger numbers, its revenue and profit margins still increased. Sydney Airport also recorded the highest average prices at \$13.63 per passenger.

This year's report has found the performance of Sydney Airport to be of greatest concern. The indications are that Sydney Airport has increased profits by permitting service quality to fall below that which the airlines reasonably expect.

*While airlines lowered their airfares to attract business in the current global economic slowdown, the airports appear to have enjoyed the security of guaranteed prices as well as benefiting from the airlines' efforts to encourage travel*³³.

5.103. Sydney Airport, however, claimed that the ACCC report was “out of date” and pointed out that since the period in review it had commenced construction of the A\$500 million upgrade of the International Terminal and surrounding roadway and supporting infrastructure³⁴. At any rate, the Authority notes that

³¹ Competition Commission, October 2002, ‘BAA plc - A report on the economic regulation of the London airports companies (Heathrow Airport Ltd, Gatwick Airport Ltd and Stansted Airport Ltd)’, Paragraph 2.101

³² http://www.airliners.net/aviation-forums/general_aviation/read.main/4742352/ also at: <http://www.smh.com.au/travel/travel-news/accc-slams-price-gouging-at-sydney-airport-20100311-q1lj.html>

³³ ACCC New release at: <http://www.rex.com.au/AboutRex/InTheCommunity/Petition/pdf/ACCC%20MR110310-%20ACCC%20issues%20annual%20report%20on%20airport%20performance.pdf>

³⁴ “Australia’s Airport Debate “ Sept 2010 at <http://atwonline.com/airports-routes/article/australia-s-airport-debate-0831>



deficiencies in service quality (or for that matter efficiency) cannot be laid merely at the door of regulatory till. Investments and capacity constraints play an important role. The Authority is of the opinion that the quality issue is about the performance regime rather than about tills and the best way to address such issue is to put in place appropriate service performance monitoring and incentives. As indicated subsequently, the Authority is putting in place an appropriate service performance monitoring regime and has linked the service performance to the tariffs by way of rebates for underperformance.

Although development and implementation of cost allocation systems and methods will require some effort and the support of the Authority, thereafter, internationally established practices and methodology for segregating costs and assets will allow allocation to be simple and efficient.

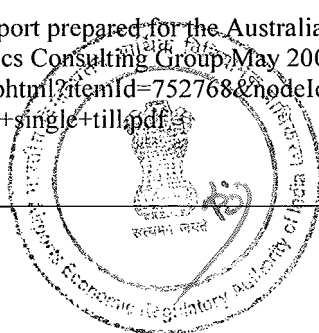
- 5.104. The Authority is conscious of this issue and has been benefited by the observations of the Competition Commission of UK in not accepting the proposal of CAA in 2002 for a change from single till to dual till on this count. The Competition Commission pointed out the accounting difficulty of separation of aeronautical and non aeronautical investments and costs saying:

“Against those, at most, limited benefits, we see significant disadvantages from the dual-till approach. We believe it is difficult sensibly to separate commercial and aeronautical activities. BAA’s rental and other commercial revenues at the three London airports would not be generated without aeronautical facilities-commercial and aeronautical facilities are better, therefore, in our view, and more realistically regarded as one business. Since the successful development of commercial revenues requires airlines to attract passengers to the airport, the benefits of commercial activities should also in our view be shared with airlines and airline users.

It is also difficult in practice to allocate either investments or operating costs between aeronautical and commercial activities. To the extent that some of the judgments that have to be made are arbitrary, future disputes about cost allocation could also harm relations between the airport and its users.”

- 5.105. One may also point out an interesting argument regarding incentive for perverse allocation of aeronautical and non aeronautical costs in dual till as follows³⁵:

³⁵ ‘Dual Till’ at Sydney Airport: A Report prepared for the Australian Competition and Consumer Commission by the Network Economics Consulting Group, May 2000, available at: <http://www.accc.gov.au/content/item.php?itemId=752768&nodeId=908cfcae7885bf73fedca4e1abb135a4&fn=NECG%E2%80%94SACL+dual+v+single+till.pdf>



“In the extreme, if all non aeronautical services are deemed contestable then airports will have the incentive to recover all costs that are common to aeronautical and non aeronautical services from the prices for aeronautical services as these costs will be included in the regulated asset base; and they will still charge the profit maximising price for non aeronautical services. The outcome often observed under the dual till model – that is, high aeronautical charges relative to the outcomes produced by the single till approach - is consistent with some degree of over-recovery of costs. As the dual till is likely to result in prices being set above the efficient level of cost, this approach would give rise to allocative efficiency losses.³⁶”

- 5.106. This is tantamount to “moral hazard”. The Authority acknowledges that it is entirely possible to adopt an off-the-shelf cost allocation methodology. As pointed out in paragraph 2.38 and 2.39 (in Part II) of the Consultation Paper, it may not be straightforward to ensure that such a basis reflects the underlying economics of the activities involved, as may especially be the case in the Indian context. The concerns of Competition Commission regarding dual-till in a fully mature regulatory regime in UK have all the more poignancy in an emerging sector of airport regulatory framework in a country like India.

A single till requires projection of non aeronautical revenues by the regulator, which is an extremely subjective exercise that is highly error-prone.

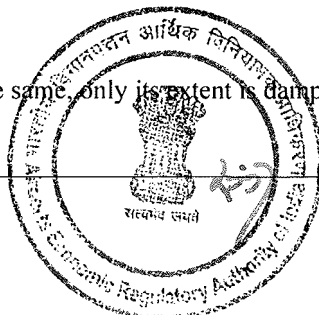
- 5.107. The Authority considers that the task of assessing non aeronautical revenue projections would be altogether less complex than ensuring that there are adequate regulatory safeguards for the accounting boundaries between aeronautical and non aeronautical activities.

The international trend is towards dual till, the French regulator has recently proposed a shift to dual till and, other than the UK, all countries with private operators have adopted a dual till regime. Indeed, DIAL is unable to find a single airport which has been majority privatised on a single till basis, since BAA’s privatisation in 1987.

- 5.108. There is no conclusive evidence to make this inference. United Kingdom, Ireland and South Africa, which have long history of economic regulation of airports, through independent regulators, continue to adopt “single till” regime.

- 5.109. As stated in preceding paragraph 5.108, in matured regulatory regimes like UK, Ireland and South Africa, there is single till regulation. In UK when CAA

³⁶In hybrid till, argument remains the same, only its extent is dampened by the percentage of hybrid till.



proposed shifting from single to dual till in 2002, the Competition Commission did not accept the proposal giving detailed reasoned order. CAA though not bound by the advice of Competition Commission, nevertheless accepted the same. Moreover, in the next review, CAA did not again raise this issue and continued with single till. In India, we are beginning the regulatory regime.

5.110. Analysis made by the Authority, shows that dual or hybrid till is normally found in such countries where one or more of the following factors are present

a) Ownership and management of the airport is predominantly in the hands of public authorities (governments, local bodies etc), or public bodies have a very large share (e.g. Vienna where public bodies have 50% share but only one private shareholder has a little over 5% shareholding. Hence, effectively all decision control is with public bodies).

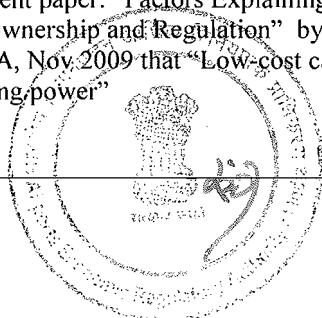
b) The regulator is not independent (and is dependent) so that the final approval to the airport charges is given generally by the government or a public body. (Independent regulators are in minority across the world: in Europe, independent regulation has only been adopted in the United Kingdom, the Netherlands, Ireland and Austria³⁷)

c) Presence of a strong flag carrier (dominant airline). In the EU flag carriers account for about 50 % of all traffic in each airport.

5.111. From public policy perspective, these correspondences should not come as a surprise. Public ownership can be expected to ensure that the surpluses from non aeronautical revenues even if not used for aeronautical purposes or airport development, are nevertheless in the hands of public authority that can be presumed to apply them for general public good and in public interest. Non independent regulator means that the tariffs are finally decided by some governmental authority that again can be presumed to keep public good and public interest in view while deciding the tariffs, including any surpluses it wants to allow the operator to keep with himself. Presence of a flag carrier indicates an effective countervailing force on the Airport Operator's likely propensity to charge monopolistic charges and is an effective instrument of self-regulating checks and balances. ³⁸

³⁷ "Does privatization spur regulation? Evidence from the regulatory reform of European airports" Germà Bel and Xavier Fageda; GiM-IREA Universitat de Barcelona, 2010/04

³⁸ This is one of the findings in a recent paper: "Factors Explaining Charges in European Airports: Competition, Market Size, Private Ownership and Regulation" by Germà Bel and Xavier Fageda of Universitat de Barcelona and FEDEA, Nov 2009 that "Low-cost carriers and airlines with a high market share seem to have a stronger countervailing power"



- 5.112. In India none of the factors listed in paragraph 5.110 above applies: five major airports (handling about 60% of the passengers and 70% of freight in the country) are in private hands; there is an independent economic regulator for major airports; and there is no dominant flag carrier.
- 5.113. The Authority notes that the Sangster International Airport at Montego Bay, Jamaica is another example of a non UK airport that was privatised in 2003 through a bidding process and is subject to a single-till regime. More recently Pristina International Airport has also been privatised on a single till basis.
- 5.114. While it is true that, of the relatively small number of countries with regulated private airports, a number of them have moved to dual till system, the rationale for doing so could be country/ airport specific.
- 5.115. The most recent shift to a “dual till”, what is called an adjusted single till, in Paris, is particularly relevant. The French Government enacted a regulation by ministerial order in December 2009 changing the scope of regulation of Aéroports de Paris (ADP) to a “dual till system” from the start of 2011. This change was enabled by the 2005 regulation, which preceded the partial privatisation of ADP.
- 5.116. In the French case, the State, and not an independent regulator, carries out regulatory functions. Furthermore, the State holds majority stake in ADP and it is a minority stakeholder in Air France-KLM. The Air France-KLM is the dominant carrier at CDG (with 56.6% market share). The Authority also notes that the Cour des Comptes (the French national audit body), in its 2008 report³⁹ on the airport sector, has highlighted the ambiguity in the various roles and motivation of the State⁴⁰.
- 5.117. ADP’s consultation paper⁴¹ containing proposals for regulation, for the period 2011-2015, presents the change to a “dual till” in positive terms. The paper

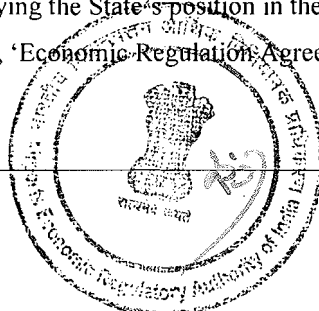
³⁹ Cour des Comptes, 2008, ‘Les aéroports français face aux mutations du transport aérien’ [‘Comptes’]

⁴⁰ Ibid Compte pp.66

“La fixation du niveau des redevances au sein du contrat de régulation économique d’ADP a fait apparaître l’ambiguïté de la position de l’Etat, partagé entre ses prérogatives de régulateur et ses motivations de propriétaire actionnaire majoritaire d’ADP et minoritaire d’Air France-KLM. Le dispositif institutionnel de fixation des redevances semble par conséquent inabouti par rapport à l’esprit premier de la réforme qui était de clarifier la position de l’Etat.”

This may be translated to read “The subject of fixing the level of income under ADP’s regulatory contract has highlighted the State’s ambiguous position. On the one hand the State has certain obligations as a regulator - on the other it would still retain the motivations that come with being the majority shareholder of ADP and a minority shareholder of Air France-KLM. Legislating to fix revenue levels appears to be at odds with the reform’s principal objective of clarifying the State’s position in these matters.”

⁴¹ Aéroports de Paris, February 2010, ‘Economic Regulation Agreement, Public consultation document, 2011-2015’



also indicates that a change in definition of 'till' was recommended in the 2008 Cour des Comptes report.

- 5.118. The Cour des Comptes considered the question of the dual till on pages 59-61 and records its conclusions on page 66⁴². It identified some advantages of the dual till, but it also highlighted some risks, particularly in relation to sharp price increases. It concluded that a move to a modified single till might provide a suitable balance between these considerations⁴³.
- 5.119. A change in the definition of 'till' does not appear to feature in its formal recommendations. Instead, its recommendations highlighted the need for effective regulation, focused on efficiency and service levels and a tougher approach to incentives and penalties.
- 5.120. One of the highlights based on review of the international perspective⁴⁴ is that of all the airports that are subject to an independent regulator, the Schiphol airport appears to be the only one that operates under a dual till price cap regime⁴⁵. It is however publicly owned. Apart from the 8% shareholding of ADP, the rest is held by the Dutch Government, City of Amsterdam and the City of Rotterdam.⁴⁶
- 5.121. The Authority considers that the movement of airports with those characteristics towards dual or hybrid till regimes cannot be seen as an appropriate precedent for all airports.
- 5.122. There is consequently, in the Authority's view, a need for a transparent analysis of the policy issues and, in accordance with ICAO policy, due weight needs to be given to the interests of airport users in the absence of a common understanding between the airports and the users.

⁴² Ibid Comptes n.8

⁴³ Ibid Comptes n.8

The relevant paragraph can be translated as: "Changes to the regulatory framework under the April 2005 legislation allow for some flexibility in the ways revenue can be determined, in line with the public interest. While this opens up the possibility of a gentle evolution for ADP, it does not call into question the so-called "single till" model. The single till mechanism serves the interests of the airlines, and ultimately passengers, with lower ticket prices. However, it also artificially understates the cost of using airport infrastructure that is approaching maximum capacity, which is not ideal for establishing the true cost of air transport. It is also important to point out the risks associated with the "dual till" system. Dual till would benefit airports but might also lead to tariff rises that are too abrupt if not accompanied by productivity improvements in aeronautical activities. By adopting a middle way, the so-called "modified single till", it should be possible to find a balance between these competing concerns on a case-by-case basis."

⁴⁴ Gillen, D. and Niemeier, H. (2006); 'Airport economic, policy and management: the European Union' paper presented at the Conference on Comparative Political Economy and Infrastructure Performance: The Case of Airports' at Madrid, September 2006.

⁴⁵ Independent regulators have operated dual till price cap regimes in the past, notably in Australia.

⁴⁶ ACI-Europe's Ownership Survey of European Airports, 2010.



5.123. These examples highlight the need for the Authority to be cautious when interpreting decisions taken in other jurisdictions. Therefore in the Authority's view, it must make its decisions to fulfil its mandate as enshrined in the Act and function as an independent regulator, without giving undue weightage to decisions made in different contexts for different objectives in foreign jurisdictions.

The UK treatment is an historical anomaly caused by the terms of the US/UK air treaties which committed the UK to applying a single till approach to regulation

5.124. The relevant treaty is the Bermuda 2 treaty signed in 1977, which replaced the original bilateral treaty (Bermuda 1). Article 10 of the treaty governed user charges at airports, as amended in an exchange of notes on 11 March 1994. The relevant clause in the amended Article 10 states:

"User charges shall be just and reasonable . . . and equitably apportioned among categories of users. . . [User charges] are just and reasonable only if they do not exceed by more than a reasonable margin, over a reasonable period of time, the full cost to the competent charging authorities of providing the appropriate airport, air navigation, and aviation security facilities and services at the airport or within the airport system. Such full costs may include a reasonable return on assets, after depreciation. In the provision of facilities and services, the competent charging authorities shall have regard to such factors as efficiency, economy, environmental impact and safety of operation."

5.125. The main text of the exchange of notes included the following statement (paragraph f (viii)):

"there is no current intention to depart at any time in the future from the principle that no distinction shall be made as to sources of revenue, including duty-free sales and other commercial revenues, in computing revenues that contribute to the rate of return on assets at Heathrow Airport"

5.126. It would appear that, although this statement refers to the single till method, it falls short of a commitment to retain it indefinitely. This understanding is supported by the discussion below.

5.127. The CAA, in its recommendations to the Competition Commission acknowledged the terms of Bermuda II and noted the Department of



Transport's advice for the previous review (in 1996) that a single till policy was not required.⁴⁷

- 5.128. Accordingly, the extensive analysis set out in the Competition Commission's report on the dual till proposals were expressed in economic and policy grounds. Even otherwise the Competition Commission recognised the existence of Bermuda II but concluded that it was unlikely to be a constraint. Paragraph 2.69 of its report⁴⁸ noted, inter alia, that:

"We were told that the US Government had been informed [about the dual till proposal], and although US airlines raised objections with us about the dual till, they did not question its legality. It was also suggested to us . . . that the extent of use of the dual till by US airports was a further reason why the US Government is now unlikely successfully to take action against any use of the dual till within the UK. One airline, however, said it was concerned there could be 'retaliation' by overseas governments."

- 5.129. The Competition Commission's analysis remains the most comprehensively evidenced regulatory decision on the question of the regulatory till for airports in UK and its decision appears not to have been influenced by the Bermuda II treaty.
- 5.130. It will, thus, be clear that the choice of till in UK is not constrained by Bermuda II but a well considered decision based on comprehensive understanding of legal, economic and policy issues. The Authority, therefore, considers it wholly inappropriate to dismiss the prevailing position in respect of UK Airports by calling it an historical anomaly.

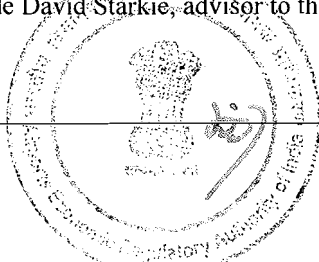
The findings of the Competition Commission upon which the Authority has placed considerable reliance have been subject to significant criticism from experts in the field

- 5.131. In both the White Paper and the Consultation Paper, the Authority referred to experts who dissented from the findings of the UK Competition Commission⁴⁹. It may be noted that several arguments related to the persistent capacity constraints at Heathrow and the distortions caused by regulatory price constraint in those circumstances. As the Authority has pointed out in paragraph 2.15 in part II of the Consultation Paper, these

⁴⁷ CAA, 'Heathrow, Gatwick and Stansted, Airports Price Caps, 2003-2008: CAA recommendations to the Competition Commission', March 2002, paragraph 4.60

⁴⁸ Competition Commission, October 2002, 'BAA plc - A report on the economic regulation of the London airports companies (Heathrow Airport Ltd, Gatwick Airport Ltd and Stansted Airport Ltd)', Paragraph 2.69

⁴⁹ Refer to Stephen Littlechild (2002) 'Competition Commission: BAA London Airports Inquiry', IEA Discussion Paper. Other critics include David Starkie, advisor to the CAA at the time it was recommending a dual till approach



arguments have been considered by the Authority with reference to the Indian context.

- 5.132. The Authority acknowledges that the definition of 'till' is a highly contentious issue which affects the relative interests of airports and its users. In the UK, several billion pounds in economic value were at stake, so it is not surprising that the decision was far from universally supported.
- 5.133. In sum, the Authority has carefully reviewed all the criticisms before arriving at its informed position.

Under the single till, users will ultimately be called upon to fund any underperformance in the medium and long term (or otherwise future investment would become unsustainable).

- 5.134. This response suggests that a single till regime does not have any headroom to accommodate underperformance, as such, any loss from underperformance will impair an Airport Operator's ability to raise finances and continued sustainability of operations will necessitate additional funding from users. The Authority does not believe so and the aforesaid could be true as much as it could also be the case under the dual till.

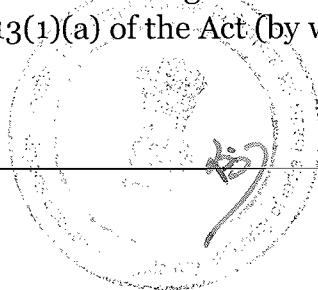
At some airports, unique non aeronautical activities like golf course, hospitals, trade fair centres, convention centres or amusement parks are not necessarily a function of aeronautical activities at an airport.

- 5.135. The Authority notes the concerns and has dealt with the issue in Section 7.

Position under the AERA Act

- 5.136. The Authority notes that the AERA Bill was introduced in Lok Sabha on 5th September, 2007. The Bill was thereafter referred to the Department Related Parliamentary Standing Committee for detailed examination. In its One Hundred and Thirty Third Report, the Committee observed that *"....though the basic infrastructure of airport is geared towards landing, parking and housing of an aircraft along with supporting ground handling, navigation, surveillance and communication facilities, the airport also provide banks and other office space etc. The economies of airport operation depend on both revenue streams i.e., aeronautical revenue and non aeronautical revenue and the Government may amend the Bill in order to include non aeronautical services in the ambit of the Bill"*.

It is understood that after due consideration of the aforesaid recommendations of the Standing Committee, following clause was incorporated in Section 13(1)(a) of the Act (by way of an official amendment in the bill):



“(v) revenue received from services other than aeronautical services”.

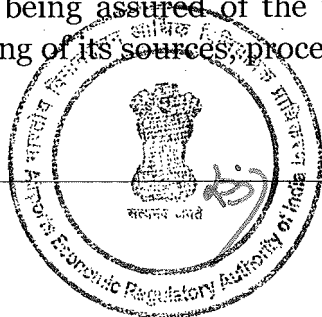
Thus a pure “dual till” approach, which does not take the non aeronautical revenue in to consideration, while determining tariff for aeronautical services, appears to be statutorily ruled out.

Further, in the absence of an explicit provision that even part of the revenue received from services other than aeronautical services could be considered, as is the case under a hybrid till, the Authority believes that the legislature did not contemplate regulation under a hybrid till.

5.137. For the reasons aforesaid, the Authority is of the opinion that “Single Till is most appropriate for the economic regulation of major airports in India”.

6. CONSULTATION PAPER RESPONSES: FAIR RATE OF RETURN

- 6.1. Submissions on the appropriate cost of equity with general support for the use of the Capital Asset Pricing Model were received from several respondents. The Authority has noted these submissions and will expect to receive detailed submissions on the cost of equity as per requirements specified under the guidelines for tariff determination, which are being issued separately.
- 6.2. One substantive point was raised by APAO on including specific risks (alpha) in the cost of equity estimate to capture the specific risks that Airport Operators face. The Authority, however, does not support the inclusion of specific risks in the cost of equity, which should be captured in the forecasts of the various regulatory building blocks.
- 6.3. Several Airport Operators highlighted that there are additional costs associated with raising and servicing debt and that these should be recognised in the cost of debt. The Authority recognises that these would generally be reasonably incurred costs. However, it would expect that these costs would be included in the capital costs of a project and not as an adjustment to the cost of debt.
- 6.4. The Authority also received responses relating to the variation in the cost of debt over the control period, for example due to debt at floating rates. It is clarified that the Authority will consider the forecast cost of existing debt likely to be faced by the Airport Operators, subject to the Authority being assured of the reasonableness of such costs based on review, including of its sources, procedures and methods used for raising such debts. For future debt likely to be raised over the control period or debt which is subject to a floating rate, the Authority may use forecast information on the future cost of debt, subject to the Authority being assured of the reasonableness of such costs, based on a review including of its sources, procedures and methods to be used for raising such debts.

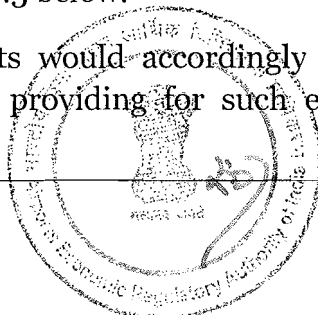


- 6.5. With regard to the refinancing of debt, the Authority expects Airport Operators to make every effort to refinance the loan as it results in net benefits to the users. The cost associated with such refinancing shall be borne by the users and any benefit on account of refinancing of loan and interest on loan shall be passed on to the users. Refinancing may also include restructuring of debt.
- 6.6. It is also broadly understood that some Airport Operators may have a relatively low level of gearing due to business decisions made in the past or management philosophy or specific constraints etc. In normal circumstances, the evidence from capital structuring decisions in the commercial sector for infrastructure businesses indicates that a low level of gearing would be considered inefficient. The Authority would appropriately consider these factors while assessing Fair Rate of Return in case of such operators with an underlying objective of protecting the reasonable interests of users.
- 6.7. The Authority will consider, for determination of Fair Rate of Return, interest free or concessional loan arrangements, deposits if any and shall not consider financing costs of any short term debt/ deposits, with maturity of less than 12 months, in its determination of weighted average cost of debt.

7. CONSULTATION PAPER RESPONSES: REGULATORY ASSET BASE (RAB)

RAB Boundary

- 7.1. A number of airport respondents argued that assets that are located outside the operational area of an airport should be excluded from the RAB. The implication is that activities associated with those assets should also be excluded from the definition of the single till for the purpose of computing price caps.
- 7.2. As highlighted in paragraph 4.15 of Part II of the Consultation Paper, the position taken by the Authority in defining the scope of the RAB is that, in normal course, all airport assets will come under the scope of the single till. However, the Authority may, based on due consideration of relevant factors, exclude certain assets from the scope of RAB, provided that if such assets are integral to the airport, the Authority may decide not to exclude them from the scope of RAB. This approach is reasonable as it treats the airport as one business yet at the same time enables the Authority to insulate the users from non related activities, if any, undertaken by the airports by suitably ring fencing the relevant assets. The principles governing the ring fencing are discussed in paragraph 7.5 below.
- 7.3. The relevant RAB assets would accordingly be all the fixed assets of the Airport Operator, after providing for such exclusions therefrom and such



inclusions therein, as determined by the Authority in respect of specific assets based on following principles:

- 7.3.1. The assets that substantially provide amenities / facilities/ services that are not related to, or not normally provided as part of airport services, may be excluded from the scope of RAB;
 - 7.3.2. The assets that in the opinion of the Authority do not derive any material commercial advantage from the airport (for example from being located close to the airport) may be excluded from the scope of RAB;
 - 7.3.3. Responses by stakeholders in relation to their inclusion or exclusion during consultations;
 - 7.3.4. Specification of, to the Authority's satisfaction, sufficient accounting separation to ensure that the costs and revenues associated with the assets shall be clearly identified for the preparation and audit of regulated airport accounts;
 - 7.3.5. Specification of, to the Authority's satisfaction wherever appropriate (where the Authority considers there may be substantial financial risks associated with any asset), sufficient legal separation to protect the Airport Operators, and thus airport users, in the event of any substantial financial risks materialising;
 - 7.3.6. Notwithstanding the principles mentioned under points 7.3.1 to 7.3.5 above, assets with fixed locations inside terminal buildings shall be considered within the scope of RAB.
- 7.4. The Authority may also, in its discretion, consider any other relevant factors, including the time period of utilisation of such assets (within or beyond the control period), for exclusion or inclusion of assets (if the Authority considers that an asset is required to be included or excluded in the scope of RAB which has not been so proposed by the Airport Operator).
- 7.5. Asset Ring Fencing Principles

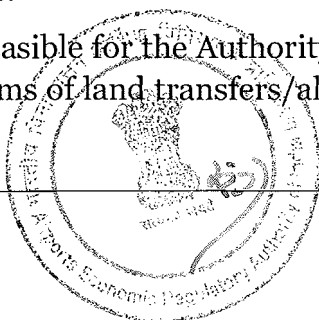
The Authority will adopt the following principles for ring fencing of assets not to be included in RAB:

- 7.5.1. The Authority recognises that normally land is given free or on highly concessional terms by the government to the Airport Operators for airport management and development. Generally, in such cases the land is acquired (partly or fully) by the government in public interest. In many cases, the land acquired is much in excess of the requirements purely for the airport development. The Authority also understands that the excess land is given by the government to make



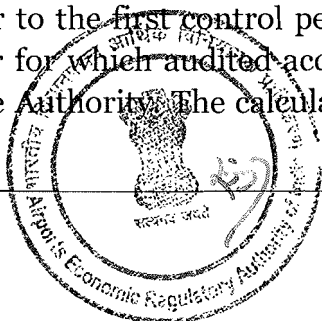
the airport viable and attractive as a worthwhile investment especially for the private investors who can exploit the land for the purposes of airport development.

- 7.5.2. The Authority is mandated by the Act to ensure the financial viability of the airports. Hence it would be giving Fair Rate of Return to the investors on the capital, consistent with the risk profile of the airport in question. It also believes that aeronautical services are ultimately provided to the passengers/cargo facility users whose interests are paramount. In its comments on the Authority's White Paper dated Dec 26, 2009, Ministry of Civil Aviation has also concurred stating that "*Consumer's interest is of paramount importance and it should be kept in view while deciding about the form of regulation*". In accordance with this approach, the Authority has kept the interests of passengers and cargo in focus in developing its framework for airport economic regulation.
- 7.5.3. The Authority thus considers that the benefits of land exploitation should go to the passengers and cargo facility users in terms of moderating the aeronautical charges. Authority is also aware of the circumstance that valuation of land is complex and over time, different valuations (generally successively higher) are possible on account of various factors like modifications in zoning pattern, variation in floor space index (which determines how much built up area is permissible on a given plot of land), development around such lands etc.
- 7.5.4. Authority is also aware of the different forms of alienating of land by the owner/lessor to actual users (generally lessees), like outright sale with or without restrictions on further transfer by the lessee, premium lease or lease rental, deposits or a combination of all these forms. It is also not feasible to contemplate, exhaustively, all such forms as may be devised for purposes of operational flexibility by the Airport Operator. Such forms change the nature and sometimes the quantum of the receipts from land exploitation, i.e whether they are to be regarded as capital receipts or revenue receipts. Moreover, the Airport Operator, for reasons of flexibility in operations, may alienate only land, or construct asset thereon and alienate land along with the asset in different forms indicated above. Additionally the nature of these receipts shifts from one to another. Furthermore while land itself does not depreciate, any asset thereon would depreciate, though the valuation of land and any asset thereon collectively would generally increase over time.
- 7.5.5. It would not be feasible for the Authority to prescribe treatment for all such different forms of land transfers/alienation. After deliberating on



all these factors, the Authority considers that the best way to capture the benefits of land exploitation for moderating the aeronautical charges is to make suitable adjustments to RAB itself. It would therefore take into account the valuation of land (and any asset thereon) only at the time of taking it out of RAB and would not monitor any fluctuations in its value thereafter.

- 7.6. For assets excluded from the scope of RAB, an adjustment (Asset Value Adjustment) in respect of the value of the asset and any corresponding land associated with such asset would be considered at the higher of:
- 7.6.1. Sum of the depreciated replacement cost value of such asset and the Land Value Adjustment (as described below) to the extent land associated with such asset is not used for any other purpose,
 - 7.6.2. Sum of the book value of such asset and the Land Value Adjustment (as described below) to the extent land associated with such asset is not used for any other purpose, and
 - 7.6.3. Sum of the transfer value of the asset and the Land Value Adjustment (as described below) to the extent land associated with such asset is not used for any other purpose; provided that if land value is already a part of the transfer value, the Land Value Adjustment will be treated as Zero.
- 7.7. For assets excluded from the scope of RAB, an adjustment (Land Value Adjustment) in respect of any corresponding land transferred or leased to or acquired by the Airport Operator in the past would be considered at the higher of (a) the prevailing market value of such land, or (b) the book value of such land.
- 7.8. If the Airport Operator decides, in future, to utilise that asset for any airport related activity and approaches the Authority to consider its value in the RAB, the Authority, upon due review of the proposal, may consider inclusion of value of such asset and its corresponding land into the RAB at the same value at which such asset was earlier excluded from the RAB.
- 7.9. The assets related to mandated security expenditure as laid down by the Government/ Bureau of Civil Aviation Security (BCAS) shall be excluded from the scope of RAB and the entire cost of security related assets shall be met out of Passenger Service Fee (PSF). The Authority will issue guidelines for determination of Passenger Service Fee (PSF) separately.
- 7.10. In the Consultation Paper, it was indicated that, the Authority will calculate the Initial RAB, prior to the first control period, based on information at the end of the latest year for which audited accounts are available at the time of the assessment of the Authority. The calculation of initial RAB shall take into



consideration original value of fixed assets, accumulated depreciation, accumulated capital grants, subsidies or user contribution, and adjustment for value of land excluded from the scope of RAB. The Authority shall include the assets in the Initial RAB based on following consideration:

- 7.10.1. Evidence of competitive procurement for major capital investments of value more than 5% of the opening RAB of the first Tariff Year;
- 7.10.2. Evidence that investment was in accordance with Government of approved master plan/ capital investment plan;
- 7.10.3. Evidence that investment, if any, over and above as provided for in (ii) above was necessary for providing better service at airport(s) or on account of a specific request from users or stakeholders.

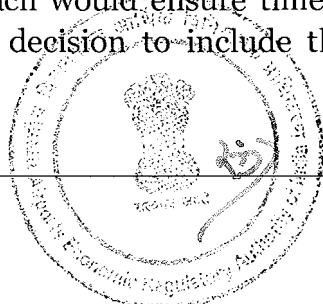
This position has been broadly accepted.

Working capital

- 7.11. The Authority had proposed the one time inclusion of working capital in the Initial RAB where there was evidence of a persistent level of working capital assets over working capital liabilities. The Authority received submissions from Airport Operators supporting the inclusion of working capital in the initial RAB. The Authority has reviewed the position and notes that inclusion of working capital in the initial RAB may not adequately address the persistent and fluctuating level of working capital over the control period. Therefore, the Authority has considered a different approach of allowing interest on short term loans, generally raised towards working capital with a maturity of less than one year, as operation and maintenance expenditure to address the working capital requirement. However, the Airport Operator shall be required demonstrate to the Authority that the proposed working capital loans are not excessive in relation to the levels of working capital. Such loans would not be considered in the calculation of the cost of debt.

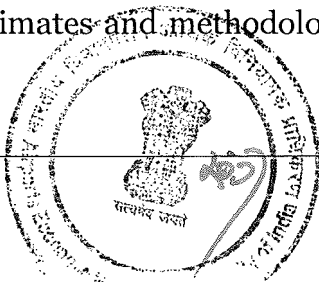
Work in Progress Assets

- 7.12. The Authority received responses from Airport Operators about the rate of return to be provided on Work in Progress assets, proposing that the Weighted Average Cost of Capital be used instead of the cost of debt. The Authority has reviewed its position and believes that it remains appropriate to consider the return on WIP assets at the cost of debt, as has been outlined in paragraph 5.35 in Part II of the Consultation Paper. This is because, if the Weighted Average Cost of Capital is allowed on WIP assets, then it is equivalent to including such assets in RAB itself. The Authority also expects that its present approach would ensure timely completion of asset creation. Hence the Authority's decision to include the WIP assets in RAB only on completion.

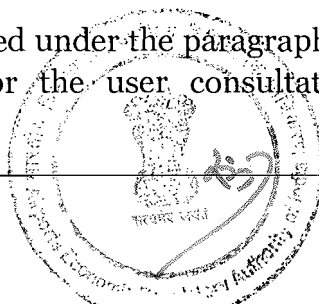


8. CONSULTATION PAPER RESPONSES: CAPITAL INVESTMENT

- 8.1. The Authority received general support from stakeholders for the principle of user consultation informing capital investment. Airport Operators, however, did note a number of concerns relating to the consultation protocol including:
- 8.1.1. The threshold for the size of projects requiring consultation: Airport Operators proposed different thresholds for capital investments that would be subject to user consultation;
 - 8.1.2. The timelines for user consultation;
 - 8.1.3. The linkage between investment and service quality: Airport Operators noted that where investments are linked to service quality, there could be a subsequent impact on tariffs because of service quality rebates;
 - 8.1.4. The procedure for conflict resolution: Airport Operators highlighted the potential for conflict within the Airport Users Consultative Committee and the role of the Authority in the process. The respondents also highlighted the need for user consultation process being driven by the Authority.
- 8.2. The Authority notes these concerns and is providing certain clarifications to the consultation protocol hereinbelow. A revised consultation protocol will form part of the guidelines for tariff determination which are being issued separately.
- 8.3. The Authority reiterates its objective to propose a consultation protocol to be followed by Airport Operators in respect of the decisions to be made on capital investment. It is a well accepted principle and best practice that future development at the airport, primarily in terms of capital investment, needs to be informed by views expressed by users of airport. The consultation protocol provides a framework between Airport Operators and users which is intended to be an on-going, continuous process during the project life cycle that should inform decisions during key phases of investment planning. The consultation protocol shall be the basis of effective consultation with the objective of informing better decisions on the key elements of project planning which includes:
- 8.3.1. Need for the project identified by the Airport Operators or the Airport Users Consultative Committee (AUCC), including if it results in improvements in quality of service
 - 8.3.2. Options for development
 - 8.3.3. Airport traffic estimates and methodology; and projected demand for the project



- 8.3.4. Project cost estimates and funding, including relevant benchmark information on costs
- 8.3.5. Impact on charges- immediate and over next 5 years
- 8.3.6. Proposed financing mechanism
- 8.4. The consultation protocol shall govern consultation on major projects identified by the Airport Operator or AUCC. The Airport Operator shall undertake user consultation with AUCC on major capital projects planned at the airport.
- 8.5. The respondents highlighted the need for specifying the threshold for projects that should be subject to the user consultation process. In this regard, one of the respondents suggested a threshold of or Rs. 50 crores or 5% of Gross RAB, whichever is higher. The respondent also suggested that following category of investments should be excluded from the purview of the consultation process:
- 8.5.1. Capital investment that fall below a minimum threshold
- 8.5.2. Capital investment for master plan agreed with Govt. of India
- 8.5.3. Capital investment for sustenance of existing assets
- 8.5.4. Capital investment for non aeronautical assets
- 8.6. The Authority proposed in the Consultation Paper that major capital projects should be subject to user consultation. After careful consideration of the responses highlighted above, the Authority has decided that the major capital projects shall be defined as capital investment projects that may represent more than 5% of the value of the RAB at the beginning of the control period or Rs.50 crore Rupees, whichever is the lower amount. Further, major projects would be classified under following two categories, to facilitate effective consultation process:
- 8.6.1. Category 1 projects shall be projects with value from 5% of opening RAB value for first Year of the control period or Rs. 50 Crores, whichever is lower, up to 10% of opening RAB value for first Year of the control period or Rs. 500 Crores, whichever is lower.
- 8.6.2. Category 2 projects shall be projects with value above 10% of opening RAB value for first Year of the control period or Rs. 500 Crores, whichever is lower.
- 8.7. User consultation would not be mandatory for the projects which are below 5% of opening RAB value for first Year of the control period or Rs. 50 Crores, whichever is lower.
- 8.8. Further, investment covered under the paragraphs 8.5.1 and 8.5.2 shall not be considered mandatory for the user consultation process. However, any



investment made pursuant to changes to the master plan, agreed with the Government of India before the start of the first control period, shall be covered under the user consultation process. The Authority believes that in order to correctly assess the initial RAB, it may have to review the efficiency of investments made before the commencement of first control period.

- 8.9. The Authority considers that user consultation on investment specified in paragraph 8.5.3 and 8.5.4 shall be made after user consultation process, as applicable. The user consultation on non aeronautical assets shall cover such investments that are determined by the Authority as 'airport related' and included in the scope of RAB.
- 8.10. The consultation shall begin when the project investment file, (containing information as per requirement set out in the tariff guideline), has been shared by the Airport Operator with AUCC and a copy of the same has been submitted for reference to the Authority.
- 8.11. The consultation process shall begin at the need identification stage after an outline of the major project has been prepared by the Airport Operator but prior to making any decision on selection of option or finalisation of design. The Authority expects Airport Operators to begin consultation at the stage when a potential need for a project is identified, before solutions and options are considered to meet identified needs, so that users have the opportunity to offer substantive input to the brief for such major project. The stages for consultation could be as under:
- 8.11.1. Needs identification stage, i.e. when the need for the project is identified, project brief has been developed and before solutions or options for development are considered;
- 8.11.2. Options development stage, i.e. when the solutions for development of identified project needs to be considered and users have a substantive input into the brief of the project; and
- 8.11.3. Detail project design stage, i.e. when a solution or option for development has been selected and the users have understanding of such reasons.
- 8.12. Consultation should encompass the exchange of information and subsequent discussion between Airport Operators and users within an appropriate timeline before key decisions are taken to enable the successful delivery of the plan.

Category 1 Projects



- 8.13. The Authority expects user consultation on category 1 projects to be completed within an overall timeline of 3 months from the time complete information is made available to the users.

Category 2 Projects

- 8.14. The Authority expects user consultation at all 3 stages of project lifecycle, identified under the Protocol to be completed within the overall timeline of 6 months such that at least 3 months have been provided from the time complete information for stage 3 is made available to the users.
- 8.15. The Authority expects the Airport Operator to collect and maintain record of consultation process, information shared and user responses for the purpose of review by the Authority. The Airport Operator shall provide monthly update to the Authority on the meetings, discussions and process undertaken with AUCC. The Authority will expect the Airport Operator and the AUCC to agree to the form of minutes of meetings and progress reports but may also specify its own requirements.
- 8.16. Some of the respondents highlighted the need for a user consultation process that is led by the Authority, mainly, due the risk of investment being delayed by the conflicting view of the stakeholders. The Authority considers that the reason for Airport Operator and AUCC led consultation process is to encourage successful relationship and partnership between the airport and its users, so that major capital investment decisions are informed by the views expressed by the users and result in 'right' investment being undertaken at the airport.
- 8.17. The Authority, therefore, expects its role in the consultation process to be limited to a review of the proceedings of the process. However, where there is sufficient evidence of disagreement between users and Airport Operator, either in terms of process of consultation, information requirements from Airport Operators or investment decisions and the Authority is satisfied that the disagreements prevent the Airport Operator in making informed decisions, the Authority may intervene to facilitate the consultation process. Any outstanding differences between Airport Operators and AUCC about the scope and depth of information provided as part of this consultation may be referred in the first instance to the Authority.
- 8.18. The Authority will consider its intervention on evidence based request from Airport Operator or users. In all events, the Authority expects to be informed on the on-going consultation between Airport Operators and users through monthly updates. The Airport Operator shall, in parallel, provide to the Authority a copy of all information furnished to AUCC.



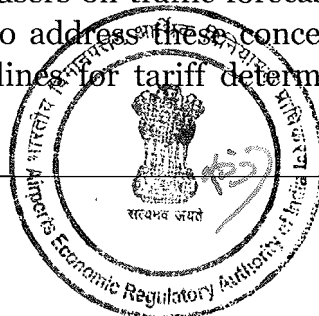
- 8.19. The Authority, or any agency appointed by the Authority, shall receive the final project investment file on the AUCC and Airport Operator consultation process at the end of the specified consultation period for all projects.
- 8.20. In the final project investment file sent to the Authority, the Airport Operator should clearly specify the process of consultation undertaken and highlight the areas of concerns, suggestion and differences made by AUCC. The project investment file shall also highlight the rationale for the final position and the next steps in project development.
- 8.21. At the time of a tariff review, these project investment files and consultation information, minutes of meeting etc. in respect of projects for which consultation is not complete, should provide relevant information to the Authority to inform its assessment of the capital expenditure that should be included in the RAB. However, the Authority may specify further information that it will require to be considered by the Airport Operator and AUCC.
- 8.22. The Authority may in its discretion intervene in the case of any other disagreements / difference of opinion between the Airport Operators and AUCC so as to facilitate the consultation.

9. CONSULTATION PAPER RESPONSES: DEPRECIATION

- 9.1. The majority of respondents supported the Authority's position on the use of straight-line depreciation based on depreciation rates from the Companies Act or other evidence sources, where appropriate. The Authority would expect that evidence would relate to the useful economic life of the asset used to determine the rate of depreciation.
- 9.2. The Authority has decided to consider the minimum residual value of the asset as 10%. Consequently, the depreciation shall be allowed only up to a maximum of 90% of the original cost of the asset.
- 9.3. Land is not a depreciable asset and its cost shall be excluded from the original cost while computing the depreciable value of the asset. Similarly, no depreciation shall be allowed on the assets made out of the pre-funding receipts such as levy of Development Fee and other capital receipts of the nature of contributions from stakeholders like subsidies/ grants from the government, if any, for the purpose of tariff determination.

10. CONSULTATION PAPER RESPONSES: TRAFFIC FORECASTING

- 10.1. The Authority received several responses from Airport Operators relating to the consultation with users on traffic forecasts, in particular the timelines of reaching consensus. To address these concerns, the Authority has decided to stipulate in the guidelines for tariff determination, which are being issued

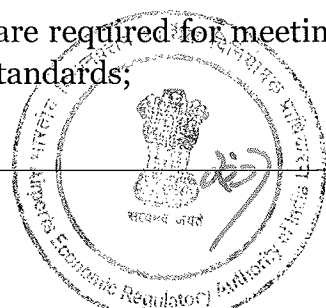


separately, that a three month time limit be placed on the consultation for traffic forecasts. All stakeholders would be required to respect this timeline and provide the required information in a timely manner.

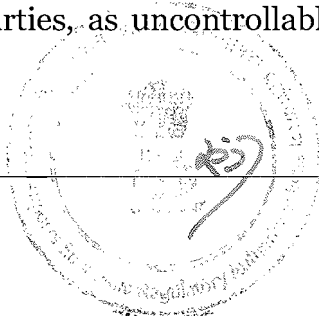
- 10.2. The Authority also received several responses from Airlines and Airport Operators on the forecast correction mechanism. In particular, concerns were raised by Airlines that the proposed mechanism would reduce the incentives to reduce costs in the event that there were few passengers and counter cyclical impact on charges, which would rise in the event of reduced traffic and fall in the event of increased traffic. In addition, Airport Operators raised concerns over the practicality of approach, especially in a downturn scenario.
- 10.3. The Authority has carefully considered the points raised. It believes that the forecast correction mechanism will provide a useful tool for sharing the risk between stakeholders in the light of variations in traffic forecasts and help to minimise the need to re-open the tariff determination in light of traffic variations. Further to the proposal presented in the Consultation Paper, the Authority considers that the system should be symmetrical with the upper and lower band percentages being equal. As part of the tariff determination process, the Authority would require Airport Operators to provide proposals for the values of the bands, supported by evidence for the rationale of such bands. The Authority will review the operation of the bands and determine the final bands for the tariff determination. For the avoidance of doubt, any variation outside of the bands will be shared equally between the Airport Operator and users.
- 10.4. The Authority also recognises, in line with consultation responses, that the forecast correction mechanism could result in charges that are counter cyclical to the normal economic cycle. Whilst this remains the case in principle, it should be recognised that under the price cap approach (to be specified in the guidelines for tariff determination), any adjustments to tariffs under the forecast error correction mechanism will be made with a two year lag, helping to smooth the impact on tariffs.

11. CONSULTATION PAPER RESPONSES: OPERATION AND MAINTENANCE EXPENDITURE

- 11.1. Responses received on operation and maintenance expenditure were largely related to the issue of uncontrollable costs. In general, airlines submitted that automatic pass through of uncontrollable costs may not incentivize efficient cost, where as Airport Operators submitted that the following should be treated as uncontrollable costs:
 - 11.1.1. All expenses that are required for meeting the required subjective and objective quality standards;



- 11.1.2. exchange rate risks;
 - 11.1.3. cost to overcome under performance by allied parties;
 - 11.1.4. power costs (due to tariff changes);
 - 11.1.5. property taxes;
 - 11.1.6. safety and environment costs.
- 11.2. The Authority had indicated in the Consultation Paper that it will follow a bottom-up approach for assessment of operation and maintenance expenditure which will include a review of the operation and maintenance expenditure forecast submitted by the Airport Operator. The Authority has found that a review based on the following principles would be appropriate:
- 11.2.1. Assessment of baseline operation and maintenance expenditure based on review of actual expenditure indicated in last audited accounts, and prudence check inter alia with respect to underlying factors impacting variance over the preceding year(s) including treatment for one-time costs or atypical costs;
 - 11.2.2. Assessment of efficiency improvement with respect to such costs based on review of factors such as trends in operating costs, productivity improvements, cost drivers as may be identified, and other factors as may be considered appropriate; and
 - 11.2.3. Assessment of other mandated operating costs or statutory operating costs, where (i) other mandated operating costs are costs incurred in compliance to directions received from other regulatory agencies including Director General Civil Aviation; and (ii) statutory operating costs are costs incurred on account of fees, levies, taxes or other charges, directly imposed on and paid for by the Service Provider.
- 11.3. The Authority has considered the views summarised in paragraph 11.1 above and has decided to specify that only “other mandated operating costs” and “statutory operating costs” should be considered as uncontrollable costs. Other mandated operating costs shall cover costs incurred in compliance to directions received from other regulatory agencies including Director General Civil Aviation. Statutory operating costs shall cover costs incurred on account of statutory fees, levies, taxes or other charges, directly imposed on and paid for by the Airport Operator.
- 11.4. For the avoidance of doubts, it is clarified that the Authority would not consider: expenses that are required for meeting the required subjective and objective quality standards, exchange risks and cost to overcome under performance by allied parties, as uncontrollable costs. In effect, these costs

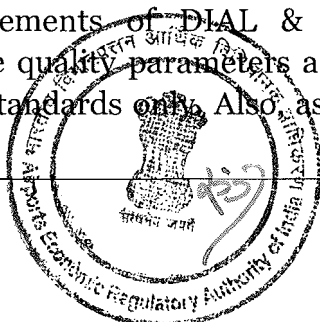


would be considered as controllable in the Authority's assessment of operating costs.

- 11.5. As part of the Airport Operators' Multi-year Tariff Framework Application, the Authority would expect the Airport Operators to detail any uncontrollable cost consistent with this position, with supporting evidence and forecast these costs as part of the building blocks approach. As part of the Compliance Statement the Airport Operator would be required to present details of its audited uncontrollable cost compared to the forecast at the time of the tariff review. The Authority would reserve the right to undertake a detailed review of the uncontrollable costs and require the Airport Operator to provide detailed justification. The Authority would then adjust tariffs to reflect any adjustments in uncontrollable costs.
- 11.6. The operation and maintenance expenditure related to mandated security expenditure as laid down by the Government/ Bureau of Civil Aviation Security (BCAS) shall be considered in determination of the PSF charge and the Authority will issue guidelines for determination of Passenger Service Fee (PSF) separately.
- 11.7. Airport Operators also submitted that allowances should be included for bad debts in operating costs. The Authority does not support this position and is of the opinion that any allowance provided for working capital should be net of allocations for bad debts.

12. CONSULTATION PAPER RESPONSES: QUALITY OF SERVICE

- 12.1. In terms of section 13(1)(a) of the Act, the Authority is required to determine tariffs for aeronautical services inter alia taking into consideration "the service provided, its quality and other relevant factors". The present discussion is with reference to aforesaid mandate of the Act.
- 12.2. In the Consultation Paper, the Authority had proposed a set of 18 objective service quality measures and 23 subjective service quality measures for consideration as part of tariff determination and quarterly compliance.
- 12.3. The following concerns were raised by stakeholder with respect to quality of service:
 - 12.3.1. Airport performance is affected by activities performed by the third parties like CISF, Immigration, Airline personnel etc. and it is unfair to expect the operator to face penalties on account of third party performance;
 - 12.3.2. Concession agreements of DIAL & MIAL specify objective and subjective service quality parameters and the Authority must restrict itself to OMDA standards only. Also, as the concession agreements of

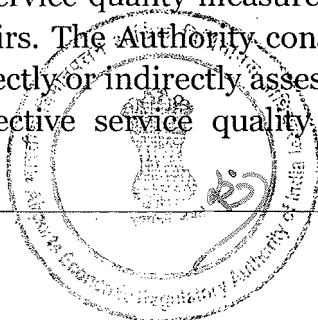


DIAL and MIAL already have a penalty mechanism, only one level of penalty should apply on service quality parameters;

- 12.3.3. Concession agreements of GHIAL and BIAL provide for a scheme of monitoring service quality at these airports as well as a mechanism of levying liquidated damages for not meeting target performance. The service quality at these airports should accordingly be monitored with respect to provisions of these concession agreements;
 - 12.3.4. Subjective service quality parameters should only be monitored and not be subject to penalty payments and the benchmark should be set at an overall level of satisfaction, rather than at the individual parameter level;
 - 12.3.5. The seasonality and periodicity of monitoring objective service quality parameters needs to specified;
 - 12.3.6. Incentive/penalty mechanism should be applicable to 8 to 10 critical parameters which can be monitored efficiently by the airports;
 - 12.3.7. A trajectory for achievement of service quality benchmarks need to be specified which will provide opportunity for the airports to calibrate their processes; and
 - 12.3.8. The incentive/ disincentive system for service quality be deferred, allowing airports to understand their operations much better and make requisite interventions.
- 12.4. The Authority has considered the concerns raised by stakeholders on number of key issues and reviewed its positions in respect of quality of service considerations as follows.
- 12.5. As already noted earlier, the Authority will consider the provisions and consequently the effect of concession agreements for the concerned airports while / at the time of determining tariffs for the first tariff cycle.

Objective Service Quality Parameters

- 12.6. With respect to specifying objective service quality parameters and measures, the Authority has considered rationalising the number of such parameters to facilitate efficient monitoring while at the same time not compromising on monitoring of services of relevance to users.
- 12.7. The Authority is accordingly dropping, from the list of parameters specified earlier, the objective service quality parameter pertaining to repair completion time and the objective service quality measure pertaining to percentage time availability of wheel chairs. The Authority considers that the performance in these areas would be directly or indirectly assessed and accounted for through other objective or subjective service quality parameters / measures. The

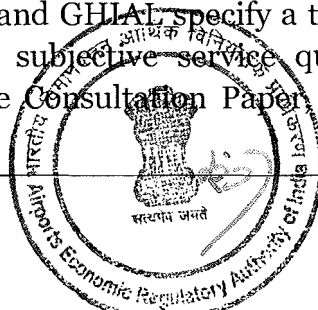


service quality of Airport Operators on repair completion times of identified airport facilities - either high priority or otherwise, would be covered through the availability measures of relevant facilities which are already proposed to be monitored. Similarly, the service quality of Airport Operators with respect to percentage time availability of wheel chairs would be covered through monitoring of the measures on percentage time availability of assistance for disabled.

- 12.8. Also, the objective service quality parameter pertaining to availability of aerobridges or passenger boarding bridges with respect to demand would be considered for major airports having such facilities at the time of individual tariff determination. The revised list of objective service quality parameters and measures that will be used by the Authority under the tariff determination framework would be specified in the Authority's guidelines for tariff determination, which are being issued separately.
- 12.9. The Authority has also considered the concerns raised with respect to equal weights being assigned for each objective service quality measure for the purpose of calculating rebates on aeronautical charges. The Authority considers the argument in favour of specifying different weights for different objective service quality measures, taking into consideration its importance to users and efficient airport service delivery, as reasonable on purist grounds. But, the Authority believes that the relative importance of different objective service quality measures is best judged by users of such services and the Authority would like to adopt a user agreed system of relative weights in future regulatory periods / tariff determination cycles. However, for the first tariff determination (control) period, in absence of such informed judgement from users, the Authority is specifying equal weights for each objective service quality parameter for rebate calculation purposes. Accordingly, the Authority hereby specifies that under-performance with respect to specified benchmark for each objective service quality measure will have a monthly rebate incidence of 0.25% of aeronautical revenue, subject to an overall cap of 1.5%. The rebate incidence for under-performance with respect to specified benchmark for each objective service quality measure has been revised downwards from the monthly rebate level of 0.5% of aeronautical revenue specified in the Consultation Paper to provide incentive to Airport Operators to focus on service quality performance on a broader set of objective parameters.

Subjective Service Quality Parameters

- 12.10. With respect to subjective service quality parameters, concession agreements for DIAL, MIAL, BIAL and GHAL specify a target rating of 3.5 on passenger satisfaction survey for subjective service quality assessment, but not for individual items. In the Consultation Paper, the Authority had proposed to

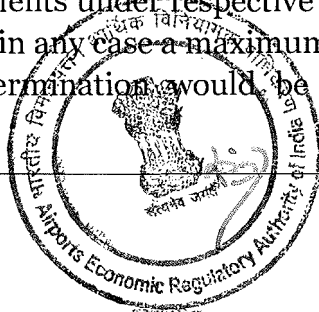


make the target rating applicable to each subjective parameter specified rather than on an overall level of satisfaction. However, in doing so, the Authority had considered that certain parameters relating to factors mentioned in the ACI ASQ survey like Passport / Personal ID control and Security may not be relevant for measuring the quality of service provided by Airport Operators since they could be outside the control of Airport Operators.

- 12.11. The Authority has now considered the arguments presented by stakeholders with respect to measuring an overall score rather than scores on individual parameters. The Authority also recognises the influence an Airport Operator can potentially have on service quality performance of other stakeholders against parameters that may seem outside the control of Airport Operators.
- 12.12. The Authority is now adopting an overall benchmark of 3.5 on the Airports Council International's Airport Service Quality (ACI ASQ) survey for subjective quality of service assessment to be undertaken by all major airports.
- 12.13. Further, the Authority believes that in order to progressively ensure better service quality performance within the control period, it would be appropriate to prescribe a higher overall benchmark for fourth and fifth years of the first control period. Accordingly it has decided that the overall benchmark for subjective quality requirements for the fourth and fifth year of the first control period shall be 3.75 on the ACI ASQ survey.
- 12.14. The Airport Operators, however, will be required to periodically (quarterly) report their performance on the overall measure as well as with respect to each subjective service quality parameter in the survey through quarterly quality of service reporting. The mechanism for such reporting will be specified under the Authority's guidelines for tariff determination, which are being issued separately.
- 12.15. The Authority hereby specifies that under-performance with respect to specified benchmark for subjective service quality criteria will result in a monthly rebate incidence of 2.5% of aeronautical revenue.

Implementation Framework

- 12.16. The Authority has also considered the issue of specifying a transition period for implementation of the scheme of quality of service measurement and determination of any rebates as relevant for major airports. Such transition period as may be required for each major airport shall be considered and specified at the time of respective tariff determinations based on review of the extant quality of service monitoring arrangements and procedures at each major airport, requirements under respective concession agreements, etc. The Authority believes that in any case a maximum transition period of 1 year from the date of tariff determination would be a reasonable time for Airport



Operators to appropriately align their processes / procedures and make any other required interventions.

- 12.17. With regards to measurement mechanism and measurement frequency, the Authority had enunciated in the Consultation Paper (Exhibit 8) the definitions of various performance measures, the frequency of measuring and information sources to be used. Based on the consultation responses and the Authority's assessment, the measurement mechanism has been reviewed and shall be provided in the tariff guidelines, which are being issued separately. In addition, Airport Operators would be required to develop a comprehensive performance measurement plan to operationalise the same. The proposed performance measurement plan would need to be submitted by Airport Operators along with tariff proposals for review and approval of the Authority. The performance measurement plan would also be required to be updated annually for changes in monitoring related aspects like busiest hour of the day, etc. Such an implementation framework will accordingly address the requirement to specify seasonality and periodicity of monitoring, etc.

13. CONSULTATION PAPER RESPONSES: REVENUES FROM SERVICES OTHER THAN AERONAUTICAL SERVICES

- 13.1. The Authority received several responses from Airport Operators noting the challenges of projecting revenues from services other than aeronautical services i.e. non aeronautical revenues. The Authority recognizes these challenges and would expect to estimate revenues from services other than aeronautical services with reference to a reasonable forecast, taking into consideration relevant factors. The Authority does not accept the position raised that there will be no incentive for the Airport Operators to increase revenues from services other than aeronautical services and would expect Airport Operators to make significant efforts to exceed the projected revenues from services other than aeronautical services and retain the out performance during the control period. The Authority believes that this approach will provide stronger incentives to Airport Operators to increase revenues from services other than aeronautical services rather than an approach where variations in outturn non aeronautical revenues would be trued-up by the Authority.

14. CONSULTATION PAPER RESPONSES: FORM OF PRICE CONTROL

- 14.1. In the Consultation Paper, the Authority has said that is shall follow a Price Cap Regulation and shall determine tariff on the basis of a Multi Year Tariff Proposal to be submitted by the Airport Operator for a control period of 5 years and would involve annual compliance process, tariff proposals, user



consultation and compliance of relevant regulations/ guidelines by the Airport Operator.

- 14.2. It was also indicated that the Authority will initially determine a yield per passenger under the tariff determination process and subsequently detailed annual tariff proposals from Airports Operators (pertaining to the approved yield per passenger) will be reviewed and approved.
- 14.3. Further, at the end of each year, the Authority will require the Airport Operator to submit a compliance statement setting out how it has complied with the price control formula, identify any under or over-recovery, and make corrections in the subsequent year(s).
- 14.4. The Authority had indicated in the Consultation Paper that it would consider UDF as a revenue enhancing measure, to ensure economic viability of the airport operations and shall be allowed only in specific cases. This position has broad acceptance. As such the Authority has decided to finalize this approach for determination of User Development Fee (UDF).
- 14.5. In the Consultation Paper, the Authority had also indicated that it considers pre-funding (levy of Development Fee) to be a measure of last resort. Before permitting levying of any pre-funding charge, the Authority will require clear justification, after consultation with users, that pre-funding is in the long term interest of users. Also, a new pre-funding levy or an increase in an existing levy during a price control period will require a full reopening, or interim review, of the price cap itself. Further, the Authority had stated that investments made from pre-funding levy (DF) would not be included in the RAB. The stakeholders have broadly accepted this approach.
- 14.6. The Authority had been guided in taking the approach of first determining the Price Cap and thereafter approving the detailed Annual Tariff Proposals by the input of the government. This approach has not been seriously disputed by any of the respondents. Therefore, the Authority has decided to follow this approach.

15. CONSULTATION PAPER RESPONSES: REVENUES FROM SERVICES SUBJECT TO SEPARATE CONTROL

- 15.1. The Authority recognises that services for the cargo facility, ground handling and supply of fuel to the aircraft are provided at major airports, by the cargo facility operators, ground handling service providers and fuel farm operators / fuel access providers could either be the Airport Operators themselves or independent agencies / licensees ("independent service providers").
- 15.2. The Authority has already laid down the regulatory philosophy and approach and guidelines for tariff determination, wherever aforesaid services are

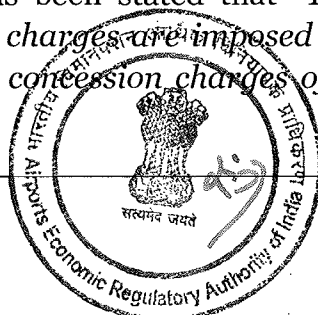


provided by the independent service providers. Where the above mentioned services are provided by the Airport Operator, the Authority has decided to follow a similar regulatory approach and process for tariff determination as mentioned in the Direction No 04/2010-11 on "The Airports Economic Regulatory Authority of India (Terms and Conditions for Determination of Tariff for Services Provided for Cargo Facility, Ground Handling , and Supply of Fuel to the Aircraft) Guidelines, 2011".

- 15.3. On treatment of services for the cargo facility and ground handling, the Authority received general support from respondents for the competition and materiality assessment proposed by it, although some responses noted that even where there are two or more operators, the structure of the market may not result in effective competition. The Authority recognizes this issue and would expect it to be dealt with through submission of evidence relating to competition assessment in such cases.
- 15.4. On fuel throughput fee, the Authority received several responses, mainly from Airport Operators and APAO that as per concession agreements, the throughput fee for supplying fuel to the aircraft shall be treated as non aeronautical revenue.
- 15.5. APAO also mentions that the airports have used a competitive process for selection of concessionaires of these services. It further states that, under ICAO guidelines, the concessions granted to oil companies for supplying fuel is considered as non aeronautical.
- 15.6. IATA submitted in its response that where material common access/ fuel farm facilities are provided and operated by a licensee, any payments made to the airport by the licensee should be included as part of the overall passenger yield determination.
- 15.7. The Authority has examined the issues raised in detail.
- 15.8. In terms of section 2(a)(vi) of the Act, any service provided for "supplying fuel to the aircraft at an airport" is an "aeronautical service". The throughput charge is a charge in respect of and for the purpose of providing the service of supplying fuel to the aircraft. In this regard, ICAO Guidance is also very instructive. In Appendix 3 of Doc 9082, fuel throughput charges have been described as under:

"A concession fee levied by an airport on each litre or gallon (or other liquid measure) of aviation fuel sold at the airport."

Further in para 41 it has been stated that *"The council recommends that where fuel "throughput" charges are imposed they should be recognized by airport entities as being concession charges of an aeronautical nature and*

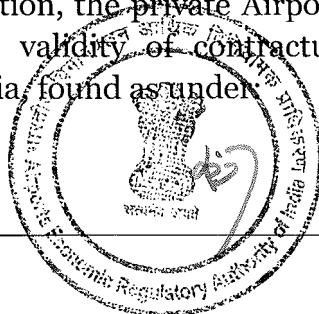


that fuel concessionaires should not add them automatically to the price of fuel to aircraft operators, although they may properly include them as a component of their costs in negotiating fuel supply prices with aircraft operators. The level of fuel "throughput" charges may reflect the value of the concession granted to fuel suppliers and should be related to the cost of the facilities provided, if any".

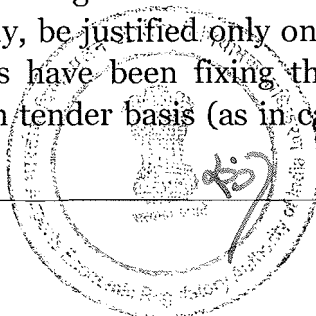
- 15.9. Thus, ICAO Guidance, in fact, suggests that the fuel throughput charges should be treated as aeronautical in nature. The level of such charges should reflect the value of concessions granted and should be related to the cost of the facility provided, if any.
- 15.10. The Concession Agreements in respect of BIAL and HIAL explicitly list out the regulated charges. The charges in respect of aircraft fueling are not indicated therein. However, aircraft fueling services per say are covered as "airport activities" in the Schedule 3 Part I of the Concession Agreements. Keeping in view the fact that the explicit statutory provisions prevail over the concession agreements, the Authority would have to regulate the fuel throughput charges in respect of these airports as well.
- 15.11. In this view of the matter, there is no doubt that the domestic law as well as international guidance requires the throughput charge to be treated as aeronautical in nature and to be regulated on the basis of cost relatedness.

Cost relatedness of Throughput Charges:

- 15.12. As indicated above, ICAO has recommended that the throughput charges may reflect the value of concessions granted to the fuel suppliers and should be related to the cost of the facility provided. It is gathered from the material available on record that, in the Indian context, the Airport Operators only provide the land and access to the oil companies. The cost of land is recovered separately through the rentals. Therefore, it is the value of concessions which would have to be considered while fixing the throughput charges.
- 15.13. In a report dated (December, 1998) of the Australian Competition and Consumer Commission on fuel throughput levies, (the Commission is required to monitor the aircraft refueling services), it took up the review of the fuel throughput levies imposed by the private airports on the basis of arrangements which were negotiated and put in place by Federal Airport Corporation (FAC) before the airports were privatized. These arrangements included provisions for fuel throughput levies but these were not activated. Pursuant to privatization, the private Airport Operators introduced the levies on the basis of the validity of contractual arrangements. In the review Commission, inter-alia, found as under:



- 15.13.1. The fuel throughput levies were not justified in terms of increases in cost or through off setting reduction in other charges. The Commission was also of the view that the question of validity of contractual arrangements between the Airport Operators and lease holders is a matter for the relevant parties not the Commission.
- 15.13.2. There is a strong case that large airports have market power in the market for refueling services. Further, when considered together with the monopoly nature of the market for land for refueling facilities, the lack of alternatives to refueling at some airports reinforces the airports market power. When considered in the light of the lack of any cost related justification for the levies, of offsetting reduction in charges, there is a strong case that imposition of a fuel throughput is -taking advantage of market power.
- 15.14. The Authority notes that, European Union (EU) has issued a Directive (No. 96/97/EC of 15.10.1996) on access to the ground handling market at community airports. As per sl. 7 of Annex, "fuel and oil handling" is part of ground handling service. Article 16(3) of the Directive provides that where access to airport installations gives rise to the collection of a fee, the latter shall be determined according to relevant, objective, transparent and non-discriminatory criteria. The Authority understands that the European Court of Justice has interpreted Art. 16(3) in a manner that it *"precludes the managing body of an airport from making access to the groundhandling market in the airport subject to payment by a supplier of groundhandling services or self-handler of an access fee as consideration for the grant of a commercial opportunity, in addition to the fee payable by that supplier or self-handler for the use of the airport installations"*. In absence of any legal instrument of the nature of EU Directive, the ratio of EU Directive and its interpretation by the European Court of Justice may not be applicable in Indian context. However, EU position and the Australian position as discussed in paragraph 15.13 hereinabove demonstrate that the Fuel Throughput Charges are not encouraged in other jurisdictions.
- 15.15. In light of the above findings, the Commission recommended that a stricter form of price oversight in relation to aircraft refueling services and found that these services should be included within a CPI-X Price Cap. It would be also relevant to mention here that the Brisbane Airport and the Perth Airport have abolished the throughput fee in 2007.
- 15.16. In the Indian context as stated above, the cost of facility, i.e., land is being recovered separately through the lease rentals. Therefore, fuel throughput charges can, apparently, be justified only on the basis of value of concession. The Airport Operators have been fixing the throughput charges either on negotiation basis or on tender basis (as in case of AAI). It would appear that



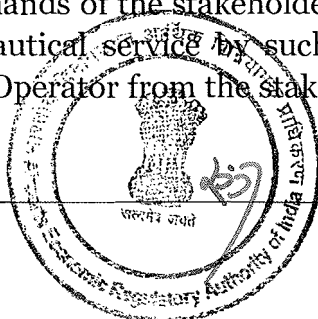
normally a market discovered fee through tender would be more representative of the "value of concession" as compared to a negotiated rate. However, the Oil companies have raised an issue in the past that the AAI's tenders in respect of Chennai and Kolkata airport were flawed. It is their view that the Airport Operators exercise their monopoly position and oil companies have no option but to agree to their requirements.

Applicability of Contractual Arrangement between the Airport Operator and Oil Companies:

- 15.17. The airlines have also responded to the Authority (as part of the consultations on Consultation Paper No.06/2010-11), that the fuel throughput agreements are entered into between the two parties who do not bear the financial burden thereof. The oil companies, who are paying the charges, pass the same on to the airlines and the Airport Operator is the net gainer. In other words, the parties to the agreement are no worse off as a result of any hike negotiated between themselves whereas entities, i.e., airlines which bear the burden are neither a party to the agreement nor are they consulted in the process.
- 15.18. In these circumstances, the submission of the airlines that the Airport Operators and the oil companies have no incentive to keep the throughput charges low has merit.
- 15.19. As a result of this position read in conjunction with the ICAO guidance and the position stated in paragraph 15.14, the Authority has decided to regulate any tariffs, including throughput charge, common hydrant infrastructure charges and into-plane service charges, by whatsoever name called, in relation to services for supplying fuel to the aircraft. The Authority shall accordingly consider such charges as aeronautical charges.
- 15.20. It is however clarified that any revenues or costs associated with items excluded from RAB shall not be considered in such calculations.

16. CONSULTATION PAPER RESPONSES: MISCELLANEOUS

- 16.1. A number of stakeholders have pointed out that the Airport Operators have provided them land and facilities/ assets which are used by them (i.e. the stakeholders) to provide aeronautical services. The stakeholders have further pointed out that, since the land and facilities/ assets have been provided to render aeronautical services; the Authority should also regulate the charges of provision of such land and facilities/ assets. The Authority has very carefully considered all related issues and observes that (i) the cost of land and facilities/ assets in the hands of the stakeholders shall be considered as a cost of providing the aeronautical service by such stakeholder; (ii) the revenue received by the Airport Operator from the stakeholder on account of provision



of land and facilities/ assets shall be counted towards passenger yield calculations, irrespective of whether such revenue is regulated or otherwise, as the Authority has decided to adopt a single till approach; (iii) the land and facilities/ assets are normally provided under mutually negotiated lease agreements in which rentals, escalations, deposits etc. are clearly provided for. The Authority believes that in the single till framework the propensity of an Airport Operator to charge disproportionately for such land and facilities/ assets would be largely mitigated. Therefore, on the balance, the Authority has decided not to regulate such charges in the framework being laid down here.

- 16.2. The Authority received several responses requesting clarity on the Facilitation Component of the Passenger Service Fee (PSF). As indicated in the Consultation Paper, the PSF is proposed to cover only the expenses pertaining to mandated security expenditure. Any costs being defrayed in the past by the Facilitation Component will be considered for remuneration through other tariff components as part of the overall yield per passenger. The Authority will issue guidelines for determination of Passenger Service Fee (PSF) separately.
- 16.3. In addition, several airlines / user groups raised concerns relating to the applicability of the guidelines to services not considered in the Act as aeronautical services, for example access fees for in-flight catering providers.
- 16.4. A number of respondents requested clarity on the treatment of miscellaneous airport charges such as royalties charged by airports for in-flight catering, space rentals and other charges that an airport is able to levy on account of its monopoly.
- 16.5. The Authority has decided to adopt a single till approach. Therefore all revenues earned by the Airport Operators including access payments or royalty payments to the Airport Operators would be included for calculation of passenger yield. It is further clarified that any revenues or costs associated with items excluded from RAB shall not be considered in such calculations.

17. ORDER

- 17.1. In this view of the matter and on careful perusal of all the submissions, views and opinions expressed by stakeholders, the Authority makes the following Order in relation to the approach and framework for economic regulation of airports.
- 17.2. Regulatory Objectives
 - 17.2.1. The Authority hereby sets for itself following objectives, by which it will be guided, while discharging its functions under the Act:



- 17.2.1.a. Facilitating wider policy aims for the aviation sector through the regulation of major airports, recognising their role in the sector and economy;
 - 17.2.1.b. Protecting and promoting the interests of existing and future users of aeronautical services at major airports by providing quality services commensurate with the respective tariffs/ charges, keeping in particular focus the interests of passengers and cargo facility users and the user expectations;
 - 17.2.1.c. Promoting investment in airports and air navigation services and their effective management so that all reasonable demands for airport services are met efficiently.
- 17.3. The Authority will operationalise these broader regulatory objectives through the following three key parameters:
- 17.3.1. Viable operations of airports in terms of maintaining investor confidence of by way of a Fair Rate of Return on 'net investment' in those airports. For this purpose it will attempt to incentivise efficient airport investment and operations while ensuring their fair remuneration.
 - 17.3.2. Specification of a framework and qualitative and quantitative parameters to ensure that the quality of service provided at airports while determining tariffs is consistent with the net investment in those airports and the user expectations.
 - 17.3.3. Ensuring efficiency, adequacy and consistency in provision of services provided by Airport Operators through encouraging efficient and appropriate investment through a price cap approach.
- 17.4. Treatment of Concession Agreements and Civil Enclaves
- 17.4.1. This order lays down the overall approach which the Authority would adopt for regulation of aeronautical services. As per Section 13 (1) (a) (vi) of the Act, the Authority is to determine the tariff for the aeronautical services taking into consideration "the concession offered by the Central Government in any agreement or memorandum of understanding or otherwise". Accordingly, the Authority has separately initiated a process to analyse and assess the implications of the principles and mechanics, relating to tariff fixation, contained in the SSA(s) in consultation with the respective Airport Operators. The Authority would thereafter determine the extent to which the covenants of the SSA(s) would impact the general framework being laid down here.



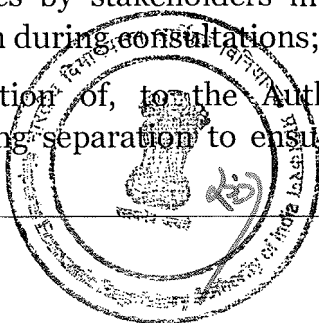
- 17.4.2. In respect of Bengaluru and Hyderabad airports, the article 10 of the respective Concession Agreements prescribe that Regulated Charges, i.e. Airport Charges specified in Schedule 6 of the Concession Agreement, shall be consistent with the ICAO policies. The Authority notes that in addition to the charges prescribed as Regulated Charges in the Concession Agreements relating to Bengaluru and Hyderabad airports, in terms of the provisions of the Act, it would also be required to regulate the tariffs relating to aeronautical services contained in Section 2 clause (a) sub-clauses (iii)–(vi) of the Act. Further, the the general framework for economic regulation of aeronautical services as being laid down here is consistent with the ICAO policies. Therefore, the framework being laid down here would also be applicable to Bengaluru and Hyderabad airports.
- 17.4.3. The overall approach and framework specified hereinafter does not apply, ipso facto, to the two Civil Enclaves (at present, Goa and Pune) within the regulatory ambit of the Authority. Appropriate views in respect of the said Civil Enclaves would be taken by the Authority with the representation of the Ministry of Defence in accordance with the provisions of sub-section (1) of Section 4 of the Act.
- 17.5. Regulatory Philosophy and Approach to Economic Regulation of Airports
- 17.5.1. Form of regulation
- 17.5.1.a. The Authority hereby adopts the Price Cap Regulation, also termed as incentive based regulation.
- 17.5.2. Regulatory till definition
- 17.5.2.a. The Authority hereby adopts “Single Till” regulatory regime for major airports in India.
- 17.5.3. Fair rate of return
- 17.5.3.a. The Authority will estimate the Fair Rate of Return by using a Weighted Average Cost of Capital approach to estimating the nominal post-tax cost of capital after making appropriate assumptions for inflation.
- 17.5.3.b. The Authority adopts the Capital Asset Pricing Model as the most appropriate approach for determining the cost of equity. However, depending on the circumstances of a particular case, the Authority will not be precluded from considering a range of evidence relating to its assessment of the cost of equity.
- 17.5.3.c. For estimating the cost of debt, the Authority will consider the forecast cost of existing debt likely to be faced by the airports, subject to the Authority being assured of the reasonableness of

such costs based on review including of the sources, procedure and method through which the debt was raised. For future debt likely to be raised over the control period or debt which is subject to a floating rate, the Authority may use forecast information on the future cost of debt, subject to the Authority being assured of the reasonableness of such costs, based on a review including of its sources, procedures and methods to be used for raising such debts.

- 17.5.3.d. Further, to determine the Fair Rate of Return, the Authority will take the weighted average gearing for each airport over the period of tariff determination (control period). Provided that the Authority would appropriately consider factors such as relatively low level of gearing adopted by the Airport Operator due to business decisions made in the past or management philosophy or specific constraints, while assessing Fair Rate of Return in case of such operators with an underlying objective of protecting the reasonable interests of users.
- 17.5.3.e. The Authority will consider, for determination of Fair Rate of Return, interest free or concessional loan arrangements, deposits if any and shall not consider financing costs of any short term debt/ deposits, with maturity of less than 12 months, in its determination of weighted average cost of debt.

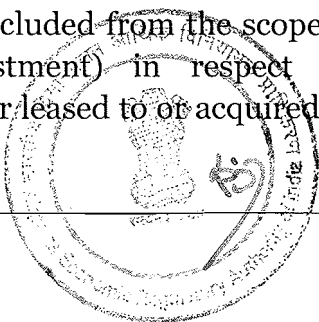
17.5.4. Regulatory Asset Base (RAB)

- 17.5.4.a. The relevant RAB assets, for defining the scope of the RAB, would be all the fixed assets of the Airport Operator, after providing for such exclusions therefrom or inclusions therein determined by the Authority in respect of specific assets based on following principles:
- 17.5.4.a.i. The assets that substantially provide amenities/ facilities/ services that are not related to, or not normally provided as part of airport services, may be excluded from the scope of RAB;
- 17.5.4.a.ii. The assets that in the opinion of the Authority do not derive any material commercial advantage from the airport (for example from being located close to the airport) may be excluded from the scope of RAB;
- 17.5.4.a.iii. Responses by stakeholders in relation to their inclusion or exclusion during consultations;
- 17.5.4.a.iv. Specification of, to the Authority's satisfaction, sufficient accounting separation to ensure that the costs and revenues



associated with the assets shall be clearly identified for the preparation and audit of regulated airport accounts;

- 17.5.4.a.v. Specification of, to the Authority's satisfaction wherever appropriate (where the Authority considers there may be substantial financial risks associated with any asset), sufficient legal separation to protect the Airport Operators, and thus airport users, in the event of any substantial financial risks materialising;
- 17.5.4.a.vi. Notwithstanding the principles mentioned under points (i) to (v) above, assets with fixed locations inside terminal buildings shall be considered within the scope of RAB.
- 17.5.4.b. The Authority will not include working capital in the RAB.
- 17.5.4.c. Work in Progress (WIP) assets would not be included in the RAB until they have been commissioned and are in use. The Authority adopts an approach whereby (subject to the position stated in respect of assets financed through pre-funding) an allowance for an appropriate rate of return on the cumulative cost of bringing the asset into operation will be capitalised as part of WIP assets. The Authority's assessment of the Fair Rate of Return for such assets will be its assessment of cost of debt.
- 17.5.4.d. For assets excluded from the scope of RAB, an adjustment (Asset Value Adjustment) in respect of the value of the asset and any corresponding land associated with such asset would be considered at the higher of:
 - 17.5.4.d.i. Sum of the depreciated replacement cost value of such asset and the Land Value Adjustment (as described below) to the extent land associated with such asset is not used for any other purpose,
 - 17.5.4.d.ii. Sum of the book value of such asset and the Land Value Adjustment (as described below) to the extent land associated with such asset is not used for any other purpose, and
 - 17.5.4.d.iii. Sum of the transfer value of the asset and the Land Value Adjustment (as described below) to the extent land associated with such asset is not used for any other purpose; provided that if land value is already a part of the transfer value, the Land Value Adjustment will be treated as Zero.
- 17.5.4.e. For assets excluded from the scope of RAB, an adjustment (Land Value Adjustment) in respect of any corresponding land transferred or leased to or acquired by the Airport Operator in the



past would be considered at the higher of (a) the prevailing market value of such land, or (b) the book value of such land.

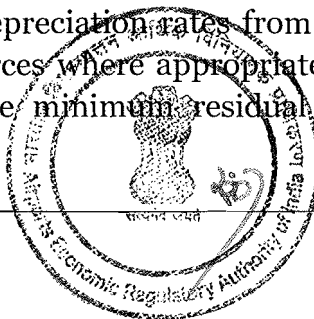
- 17.5.4.f. The Authority will calculate the Initial RAB, prior to the first control period, based on information at the end of the latest year for which audited accounts are available at the time of the assessment of the Authority. The calculation of initial RAB shall take into consideration original value of fixed assets, accumulated depreciation, accumulated capital grants, subsidies or user contribution, and adjustment for value of land excluded from the scope of RAB. The Authority shall include the assets in the Initial RAB based on following consideration:
- 17.5.4.f.i. Evidence of competitive procurement for major capital investments of value more than 5% of the opening RAB of the first Tariff Year;
- 17.5.4.f.ii. Evidence that investment was in accordance with Government of India approved master plan/ capital investment plan;
- 17.5.4.f.iii. Evidence that investment, if any, over and above as provided for in (ii) above was necessary for providing better service at airport(s) or on account of a specific request from users or stakeholders.
- 17.5.4.g. The investment made from pre-funding levy (DF) would not be included in the RAB.

17.5.5. Capital Investment

- 17.5.5.a. Capital investment plans should be taken up after appropriate user consultations. The quality of consultation and the extent to which stakeholder representations have been reasonably taken into account will be key considerations for the inclusion of capital investment in RAB. Based on the discussions in paragraph 8 above, the Authority will specify a Consultation Protocol, as a part of its guidelines for tariff determination, which will require an ongoing consultation process and a mechanism for that process to inform the Authority's decision making.

17.5.6. Depreciation

- 17.5.6.a. The Authority will use straight line method of depreciation and will use depreciation rates based on reasonable estimates of the useful economic lives of the respective assets and, may have reference to depreciation rates from the Companies Act or other evidenced sources where appropriate. The Authority has decided to consider the minimum residual value of the asset as 10%.



Consequently, the depreciation shall be allowed only up to a maximum of 90% of the original cost of the asset.

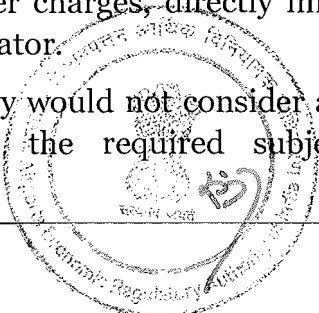
- 17.5.6.b. Land is not a depreciable asset and its cost shall be excluded from the original cost while computing the depreciable value of the asset. Similarly, depreciation on pre-funding receipts such as levy of Development Fee and other capital receipts of the nature of contributions from stakeholders like subsidies/ grants from the government, if any, shall not be considered for the purpose of tariff determination.

17.5.7. Traffic Forecasting

- 17.5.7.a. At each tariff review, the Authority will request airports to provide it with traffic forecasts together with evidence of consultation with users. The Authority would reserve the right to review forecast assumptions, methodologies and processes and to determine the final forecast to be used for the determination of tariffs.
- 17.5.7.b. The Authority will also use forecast correction mechanism if the actual traffic turns out to fall outside the prescribed bands with the upper and lower band percentages being equal. As part of the tariff determination process, the Authority would require Airport Operators to provide proposals for the values of the upper and lower bands, supported by evidence for the rationale of such bands. The Authority will review the operation of the bands and determine the final bands for the tariff determination. For the avoidance of doubt, any variation outside of the bands will be shared equally between the Airport Operator and users.

17.5.8. Operation and maintenance expenditure

- 17.5.8.a. The assessment of operation and maintenance expenditure by the Authority shall include a review of the operation and maintenance expenditure forecast submitted by the Airport Operator based on the principles indicated in paragraph 11.2.
- 17.5.8.b. The Authority shall consider only “other mandated operating costs” and “statutory operating costs” as uncontrollable costs. Other mandated operating costs shall cover costs incurred in compliance to directions received from other regulatory agencies including Director General Civil Aviation. Statutory operating costs shall cover costs incurred on account of statutory fees, levies, taxes or other charges, directly imposed on and paid for by the Airport Operator.
- 17.5.8.c. The Authority would not consider any expenses that are required for meeting the required subjective and objective quality



standards, exchange risks and cost to overcome under performance by allied parties, as uncontrollable costs. In effect, these costs would be considered as controllable in the Authority's assessment of operating costs.

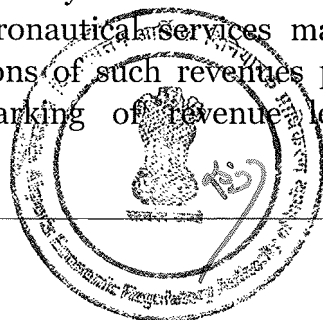
- 17.5.8.d. The Authority shall consider financing costs of any short term debt, generally raised towards working capital with maturity of less than 12 months, as part of its assessment of operation and maintenance expenditure. However, the Airport Operator shall demonstrate to the Authority that such loans are not excessive in relation to the levels of working capital.
- 17.5.8.e. The operation and maintenance expenditure related to mandated security expenditure as laid down by the Government/ Bureau of Civil Aviation Security (BCAS) shall be considered in determination of the PSF charge and the Authority will issue guidelines for determination of Passenger Service Fee (PSF) separately.
- 17.5.8.f. The Authority considers that any allowance provided for working capital should be net of allocations for bad debts.

17.5.9. Quality of Service

- 17.5.9.a. While the Authority will discharge its other functions under the Act with respect to monitoring the set performance standards as may be specified by the Central Government (Section 13 (1) (d) of the Act), it will, in accordance with the provisions of Section 13(1)(a)(ii) of the Act, take into consideration the quality of service provided by Airport Operators on specified parameters and measures while determining tariffs.
- 17.5.9.b. The Authority will require the specific service parameters to be measured at major airports. It hereby adopts a mechanism that will consider reduced tariffs for under-performance vis-a-vis specified benchmarks on quality of service to adequately protect the interest of users.
- 17.5.9.c. Under such a mechanism, the calculated level of rebate for a year will be passed on to users of airport services in the form of reduced tariffs in the following year(s).

17.5.10. Revenue from services other than aeronautical services

- 17.5.10.a. The Authority's review of forecast of revenues from services other than aeronautical services may include scrutiny of bottom-up projections of such revenues prepared by the Airport Operator, benchmarking of revenue levels, commissioning experts to



consider where opportunities for such revenues are under-exploited, together with the review of other forecasts for operating costs and traffic and capital investment plans that have implications for such activities.

- 17.5.10.b. The Airport Operator(s) shall be allowed to retain any upside in the revenues from such services for the control period, as compared to the forecast revenues reviewed by the Authority at the beginning of such control period.

17.5.11. Revenue from services subject to separate control

17.5.11.a. The Authority has already laid down the regulatory philosophy and approach and guidelines for tariff determination, wherever aforesaid services are provided by the independent service providers. Where the above mentioned services are provided by the Airport Operator, the Authority shall follow a similar regulatory approach and process for tariff determination as mentioned in the Direction No 04/2010-11 on "The Airports Economic Regulatory Authority of India (Terms and Conditions for Determination of Tariff for Services Provided for Cargo Facility, Ground Handling , and Supply of Fuel to the Aircraft) Guidelines, 2011".

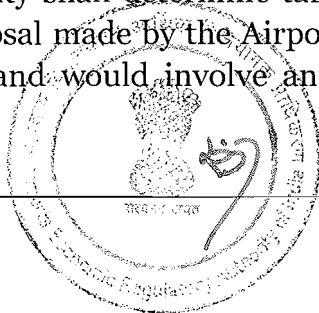
17.5.11.b. The throughput charge is a charge in respect of and for the purpose of providing the service of supplying fuel to the aircraft. The fuel throughput charge is, therefore, required to be determined by the Authority in terms of section 13(1)(a) read with section 2(a)(vi) of the Act.

17.5.11.c. The Authority has decided to regulate any tariffs, including throughput charge, common hydrant infrastructure charges and into-plane service charges, by whatsoever name called, in relation to services for supplying fuel to the aircraft. The Authority shall accordingly consider such charges as aeronautical charges.

17.5.11.d. The Authority shall include all revenues earned by the Airport Operators from services for ground handling services relating to aircraft, passengers and cargo at a major airport; the cargo facility at a major airport; and supplying fuel to the aircraft at a major airport, for calculation of overall passenger yield.

17.5.12. Form of price control and tariff structure

17.5.12.a. The Authority shall determine tariff on the basis of a Multi Year Tariff Proposal made by the Airport Operator for a control period of 5 years and would involve annual compliance process, tariff



proposals, user consultation and compliance of relevant regulations/ guidelines by the Airport Operator.

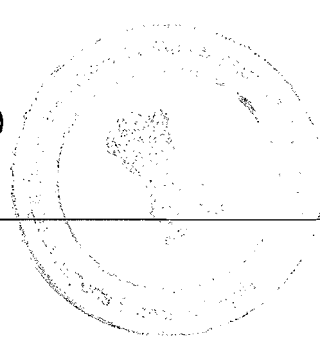
- 17.5.12.b. The Authority will initially determine a yield per passenger under the tariff determination process and subsequently detailed annual tariff proposals from Airports Operators (pertaining to the approved yield per passenger) will be reviewed and approved.
- 17.5.12.c. The Authority may require the Airport Operator to submit an Annual PSF Proposal for determination of Passenger Service Fee (PSF) as per guidelines issued by the Authority separately.
- 17.5.12.d. At the end of each year, the Authority will require the Airport Operator to submit a compliance statement setting out how it has complied with the price control formula, identify any under or over-recovery, and make corrections in the subsequent year(s).
- 17.5.12.e. The Authority shall consider UDF as a revenue enhancing measure, to ensure economic viability of the airport operations and shall be allowed only in specific cases upon due consideration.
- 17.5.12.f. The Authority shall consider pre-funding (levy of Development Fee) as a measure of last resort. Before permitting levying of any pre-funding charge, the Authority will require clear justification, after consultation with users, that pre-funding is in the long term interest of users. Also, a new pre-funding levy or an increase in an existing levy during a price control period will require a full reopening, or interim review, of the price cap itself. Further, the Authority the investments made from pre-funding levy (DF) would not be included in the RAB.
- 17.5.13. The Authority proposes to operationalise the regulatory philosophy and approach as decided above through detailed guidelines. A draft of "The Airports Economic Regulatory Authority of India (Terms and Conditions for Determination of Tariff for Airport Operators) Guidelines, 2011" is being issued separately for stakeholder consultation before being finalised.

By the Order of and in the name of the Authority


(Sandeep Prakash)
Secretary

To,

1. Airports Authority of India,
Rajiv Gandhi Bhawan,
New Delhi -110 003
(Through: Shri V.P Agrawal, Chairman)



2. Cochin International Airport Pvt.Ltd,
Nedumbassery, Pvt Ltd,
Cochin, Kerala
(Through: Dr.Krishnadas Nair, Managing Director)
3. Delhi International Airport Pvt.Ltd,
Uran Bhawan,
IGI Airport,
New Delhi – 110 037
(Through: Shri.Kiran Kumar Grandhi, Managing Director)
4. Hyderabad International Airport Pvt.Ltd,
GMR HIAL Airport Office
Shamshabad,
Hyderabad -500 409
(Through: Shri.Kiran Kumar Grandhi, Managing Director)
5. Mumbai International Airport Pvt Ltd,
CSI Airport,
Mumbai
(Through: Shri.G.V.Sanjay Reddy, Managing Director)
6. Bangalore International Airport Pvt.Ltd,
Administration Block,
Devanahalli, Bangalore- 560300
(Through: Shri.G.V.Sanjay Reddy, Managing Director)

