FINANCIAL OPPORTUNITIES FORUM

Today's topic:

From Toll Bridge to Aerobridge - Business of Airports explained

Upcoming FOFs:

Thursday, January 15, 2026

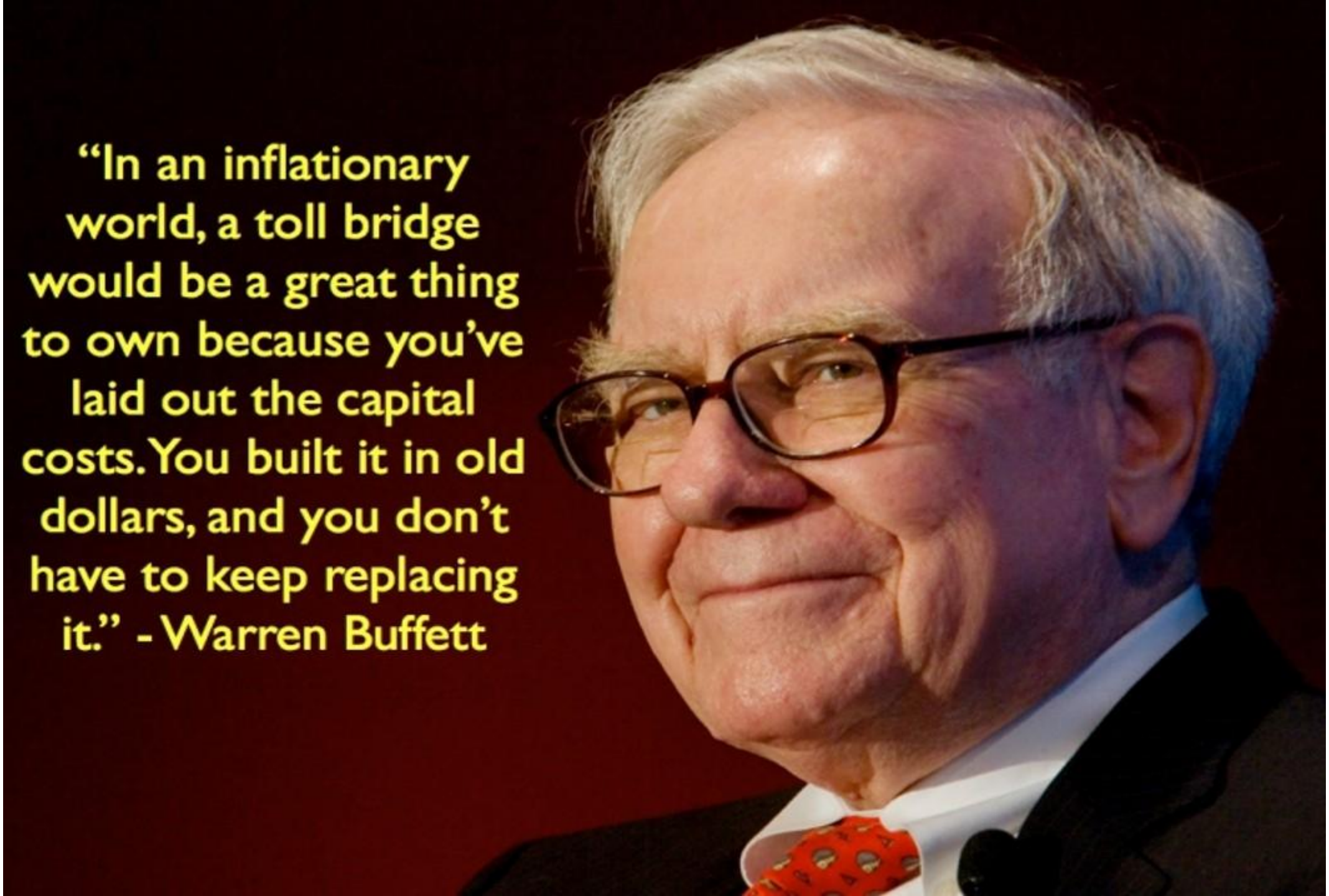
Thursday, February 19, 2026

All archives available at: ppfasfof.com

Mr Shantanu Bawari

Manager - Research

PPFAS Asset Management Pvt Ltd


"In an inflationary world, a toll bridge would be a great thing to own because you've laid out the capital costs. You built it in old dollars, and you don't have to keep replacing it." - Warren Buffett

I Don't Want to be a Toll Bridge, I Want to be Its Meaning

Posted on October 21, 2012 by fundooprofessor

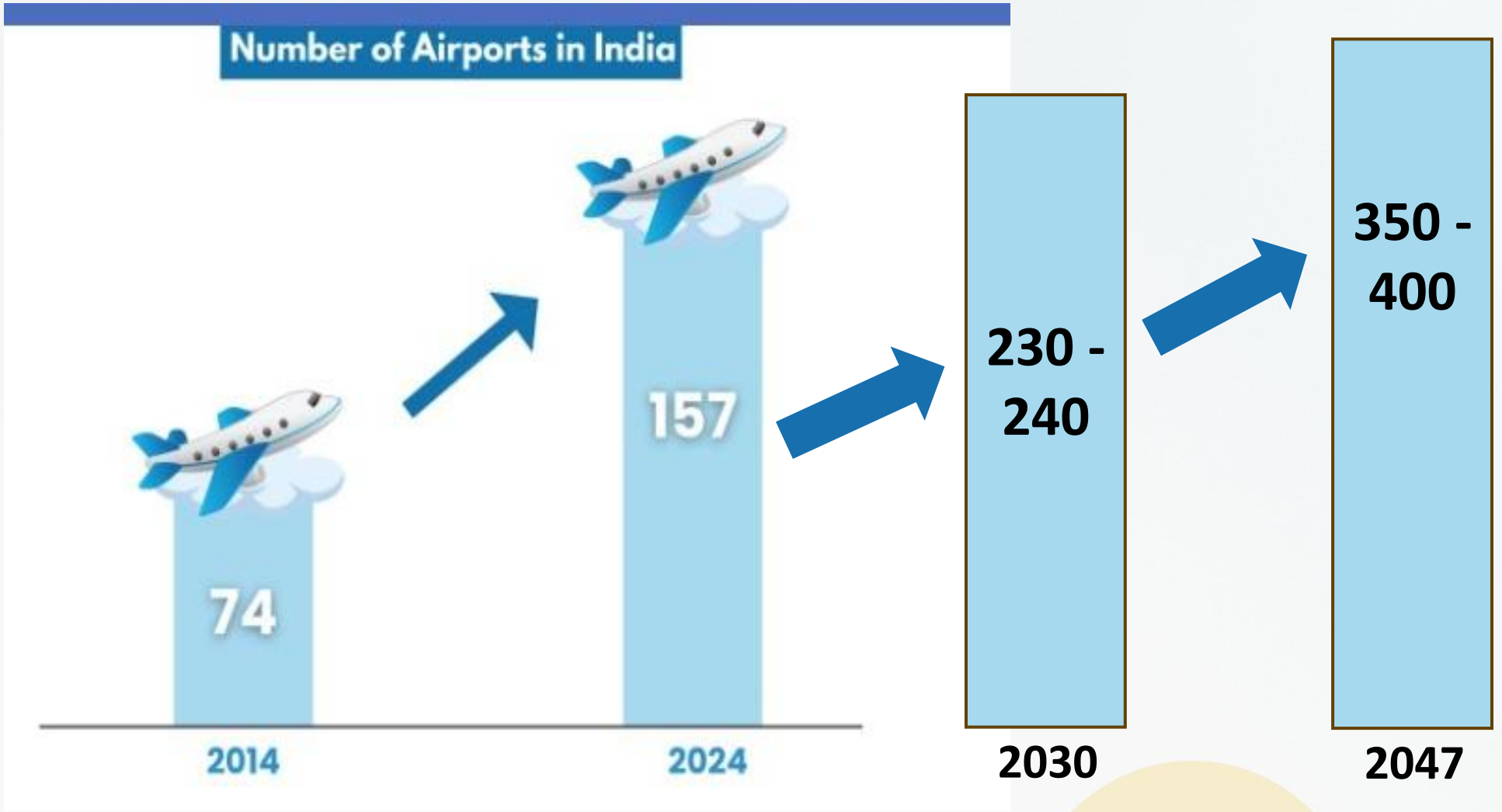

AIRPORT TARIFF

FROM TOLL BRIDGE TO AEROBRIDGE

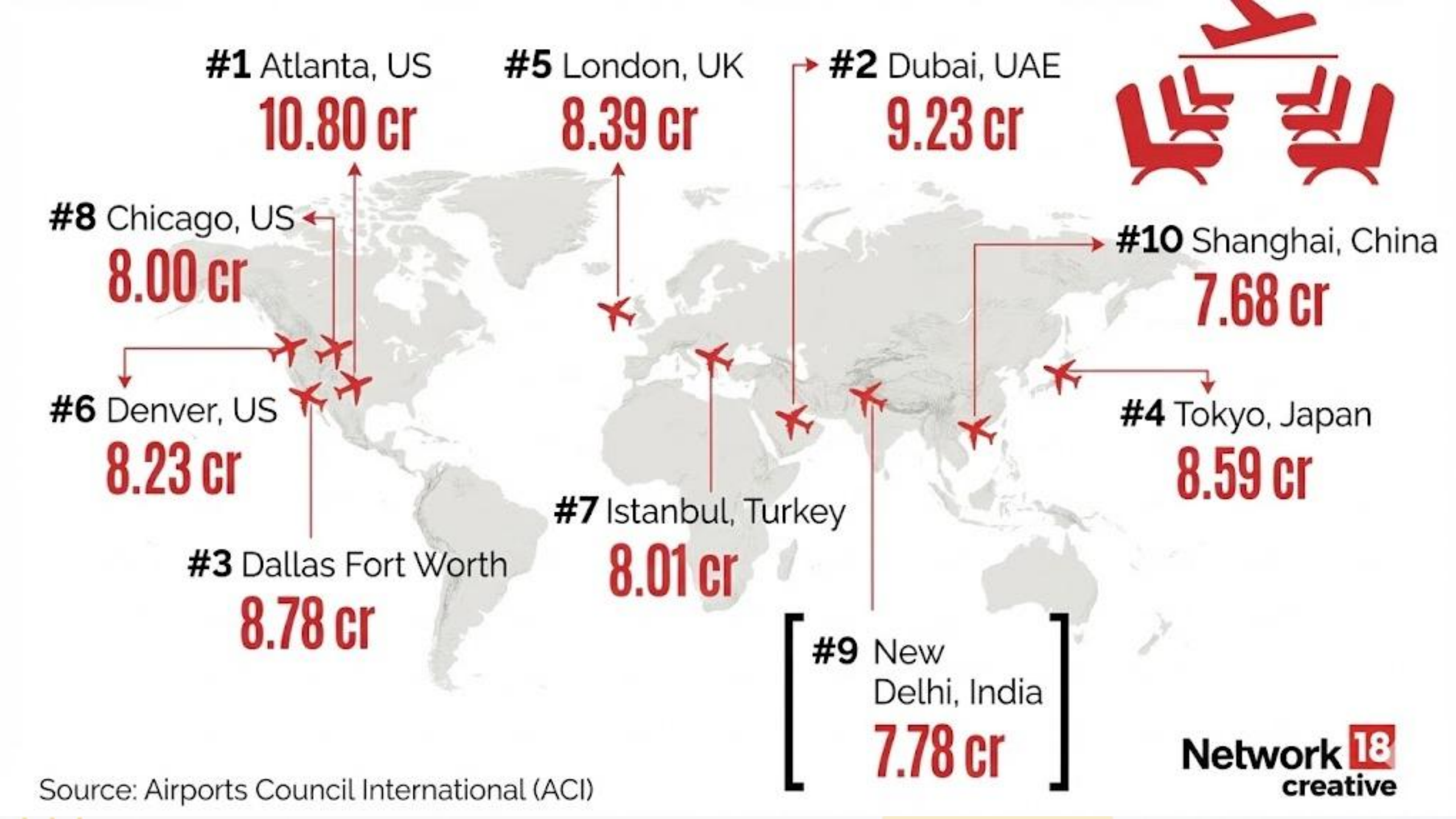
BUSINESS OF AIRPORTS EXPLAINED

AIRPORTS – THE CURRENT STATUS

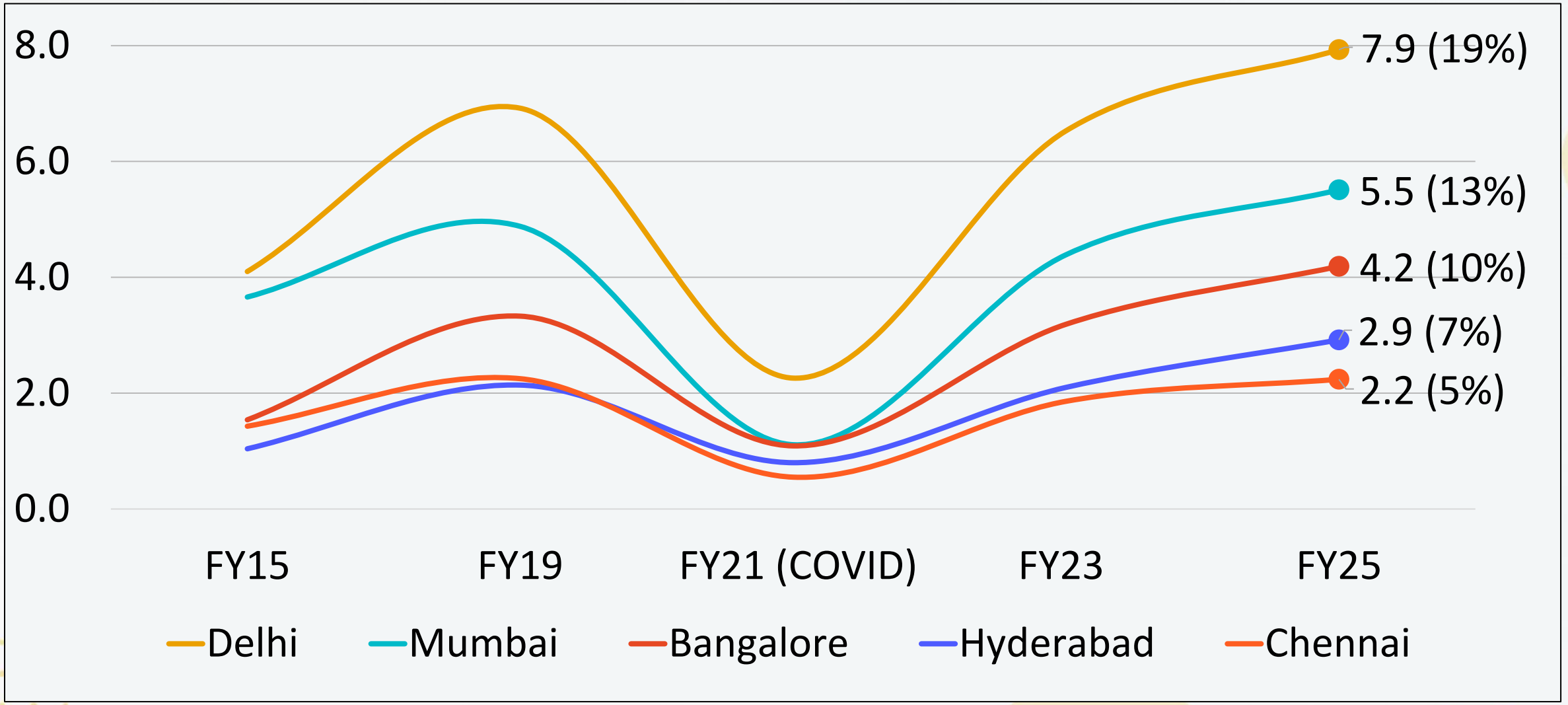
Current Status – no. of Airports in India



Source: PIB


#1 Atlanta, US
10.80 cr
#5 London, UK
8.39 cr
#2 Dubai, UAE
9.23 cr
#8 Chicago, US
8.00 cr
#10 Shanghai, China
7.68 cr
#6 Denver, US
8.23 cr
#4 Tokyo, Japan
8.59 cr
#7 Istanbul, Turkey
8.01 cr
#3 Dallas Fort Worth
8.78 cr
#9 New Delhi, India
7.78 cr
Source: Airports Council International (ACI)
Network 18 creative

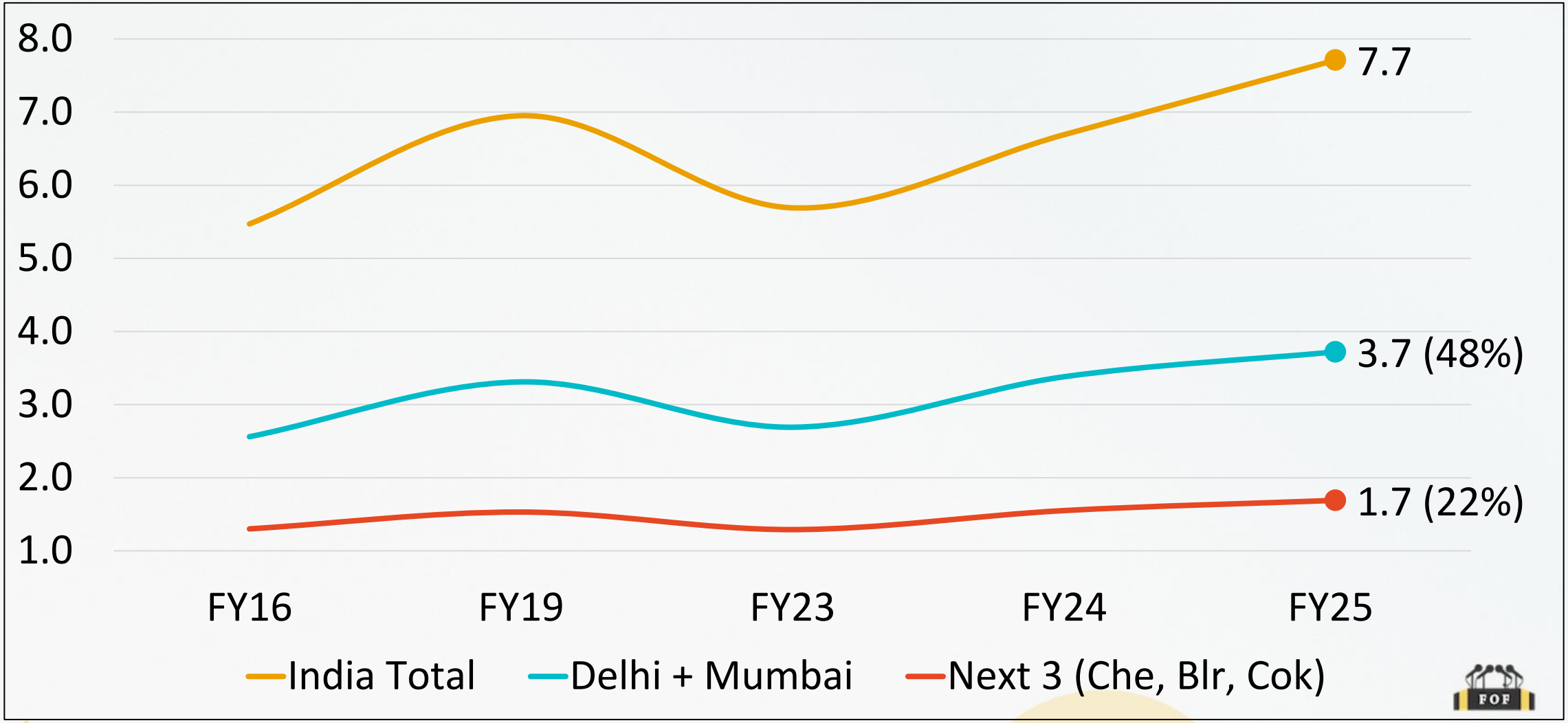
Current Status – total pax (crs) handled in India



6% growth for the last 10 years for total India pax

Source: AAI

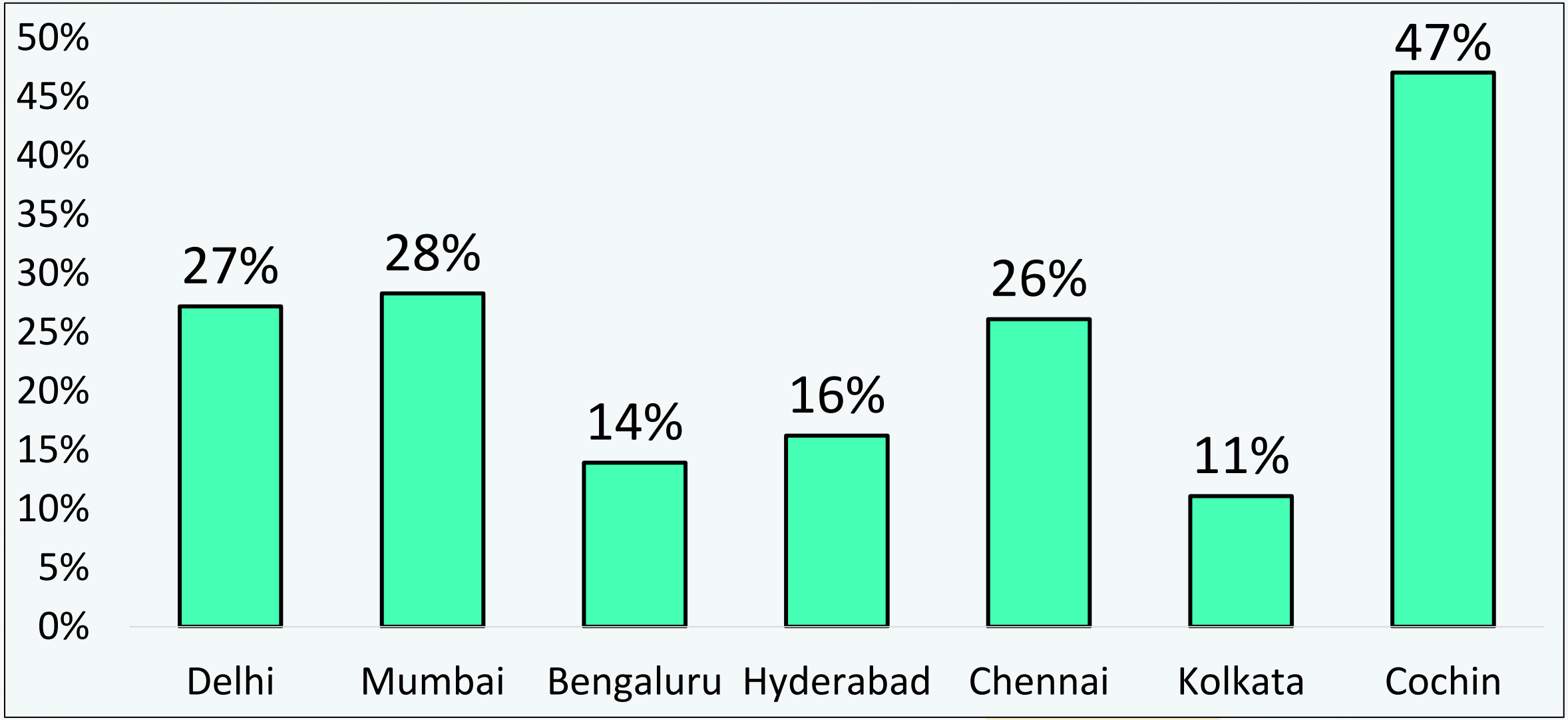
Current Status – total int'l pax handled in India



Low single digit growth for the last 10 years

Source: AAI

Current Status – int'l pax as a % of total (India)



Source: AAI

HISTORY OF PRIVATE AIRPORTS

Before the 1970s…

- Airports were treated like a **public utility**
- Mainly **operated by the regulators** (example – DGCA in India)
- **Focus only on the Aeronautical** aspect of the airport

During the 70s and the 80s

- Airports were **Corporatized and Commercialized**

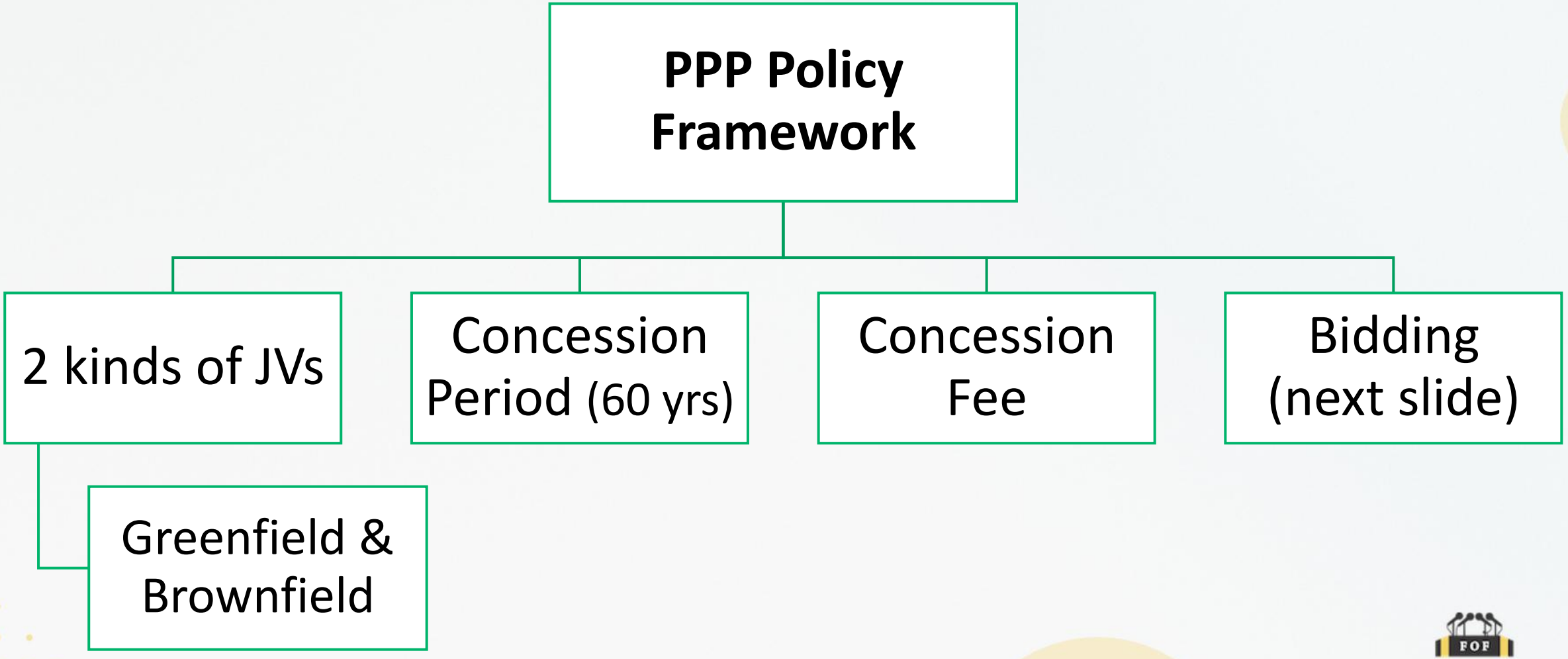
Source: Websites

During the late 80s and onwards

- **Privatization** of Airports (IPO, M&A or PPP)

Source: Websites

Indian Airports during the 2000s



Source: Airport Privatization in India: Lessons from Delhi and Mumbai

Indian Airports during the 2000s

- **Ground rules for bidding**:

  i. Management and Development **Capabilities**

  ➢(min score – 80%)

  ii. Concession Fee %

  ➢(4% fixed for Greenfield and highest bidder for brownfield)

  iii. One Operator – only One Airport per set

Source: Airport Privatization in India: Lessons from Delhi and Mumbai

Indian Airports during the 2000s

- **Greenfield Public Private Partnership (PPP)** for 2 airports and…

Source: New Approaches to PPP focusing on the Airport Sector, NITI Aayog

Indian Airports during the 2000s

- **…Brownfield PPP** for 2 airports

Source: Airport Privatization in India: Lessons from Delhi and Mumbai

The financial bids were opened on January 31, 2006.

Per cent

S No	Name of the Bidder	Management Capability		Development Capability	**Financial Bid**
		Pre GETE	Post GETE		
Delhi Airport					
1	Reliance-ASA	80.9	74.8	81.0	**45.99**
2	GMR-Fraport	84.7	81.7	80.1	**43.64**
3	DS Construction-Munich	73.1	73.3	70.5	**40.15**
4	Sterlite-Macquarie-ADP	57.0	53.5	61.9	**37.04**
5	Essel-TAV	37.6	40.4	41.4	**Bid not opened**
Mumbai Airport					
1	Reliance-ASA	81.0	74.8	80.2	**21.33**
2	GMR-Fraport	84.7	81.7	92.7	**33.03**
3	DS Construction-Munich	73.1	73.3	54.7	**28.12**
4	Sterlite-Macquarie-ADP	57.0	53.5	65.1	**Bid not opened**
5	Essel-TAV	35.5	38.3	29.4	**Bid not opened**
6	GVK-ACSA	76.0	73.0	59.3	**38.70**

[Source: SC, 2006]

Source: Airport Privatization in India: Lessons from Delhi and Mumbai

Indian Airports during the 2010s

- Ground rules for bidding [UPDATES]:

  ~~i. Management and Development Capabilities~~

  ii. Concession Fee ~~%~~

  - ~~(4% fixed for Greenfield and highest bidder for brownfield)~~
  - Bidding on a **per pax** basis

  ~~iii. One Operator – only One Airport per set~~

- Basis this, set of 6 Airports were to be privatized

Source: PIB

Indian Airports during the 2010s

Name of bidder (INR per pax)	AMD	JAI	GAU	LKO	TRV	M'luru
GMR	85	69	59	63	63	18
Adani	177	174	160	171	168	115
Autostrade (a toll road operator)	60	48	-	55	-	-
PNC Infratech	66	36	18	27	-	-
NIIF & Zurich Airport	146	155	155	-	-	-
AMP Capital	127	139	136	139	-	-
I-Investment Ltd.	93	72	-	39	-	-
KSIDC	-	-	-	-	135	-
Cochin International Airport	-	-	-	-	-	45

Source: Infra PPP World

Indian Airports during the 2010s

- Few other airports privatised:

Year	Airport	Operator	Model	Concession Fee
2016	Mopa (Goa)	GMR	Greenfield	37%
2017	Navi Mumbai	GVK (via MIAL)	Greenfield	12.6%
2019	Noida (Jewar)	Flughafen Zurich	Greenfield	INR 401 per pax*

**Concession fee from the 6th year; INR 401 is in real terms*

- 2020 - Adani's takeover of MIAL (Mum & Navi Mum) from GVK
- Now (FY2026), 10+ Airports are set to be privatized

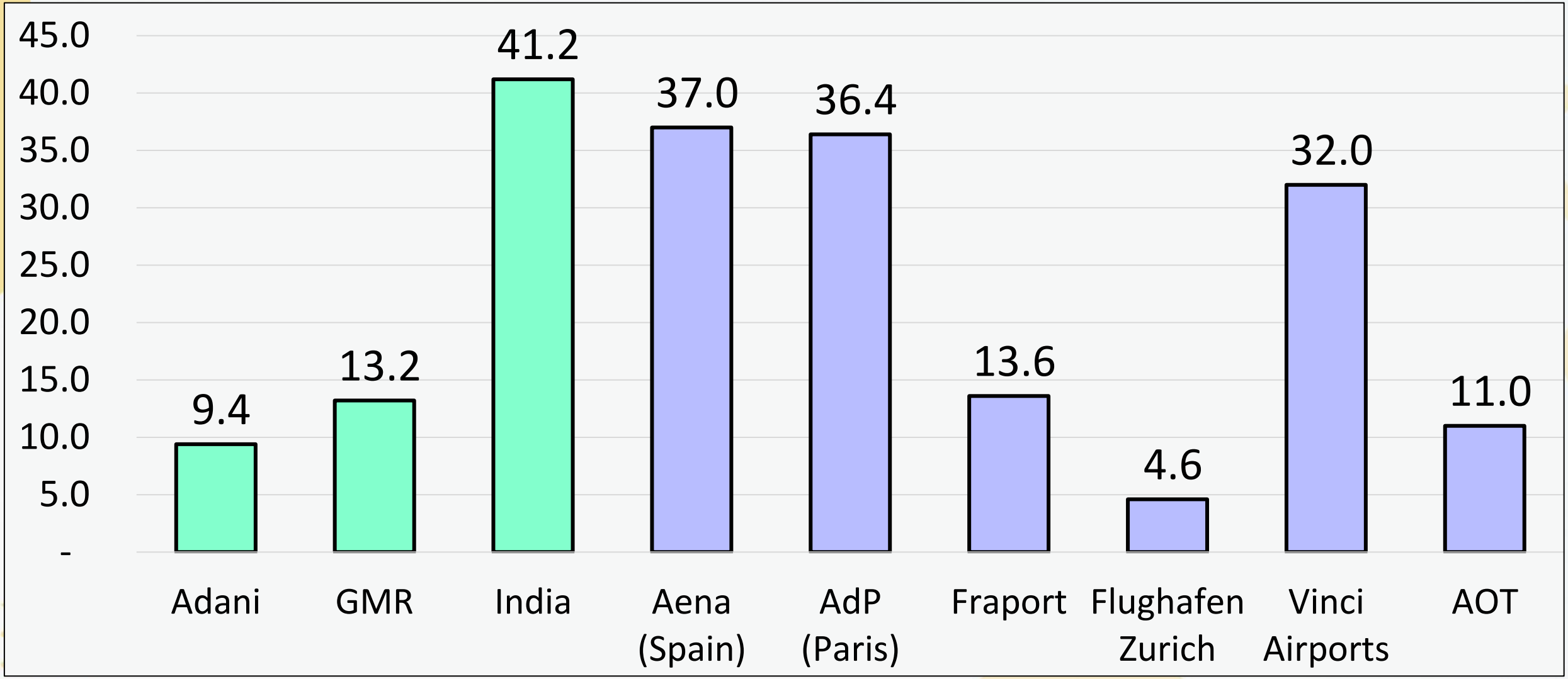
Source: Web search

Some of the Top Listed Operators in the world

Operator	Country	Top airports/ regions operated
Aena	Spain	Spain, London (Luton), Brazil
Groupe AdP	France	Paris, ~50% of GMR and TAV
Vinci Airports	France	London (Gatwick), Lisbon, Osaka
Fraport	Germany	Frankfurt, Antalya, Greece
Flughafen Zürich	Switzerland	Zürich, Latam, Noida
Airport of Thailand		>85% Thai pax (Bangkok, etc)
GMR Airports and Adani Airports in India		

Source: Web search

Pax handled by Top Operators (crore)



Source: Web search, Annual Reports

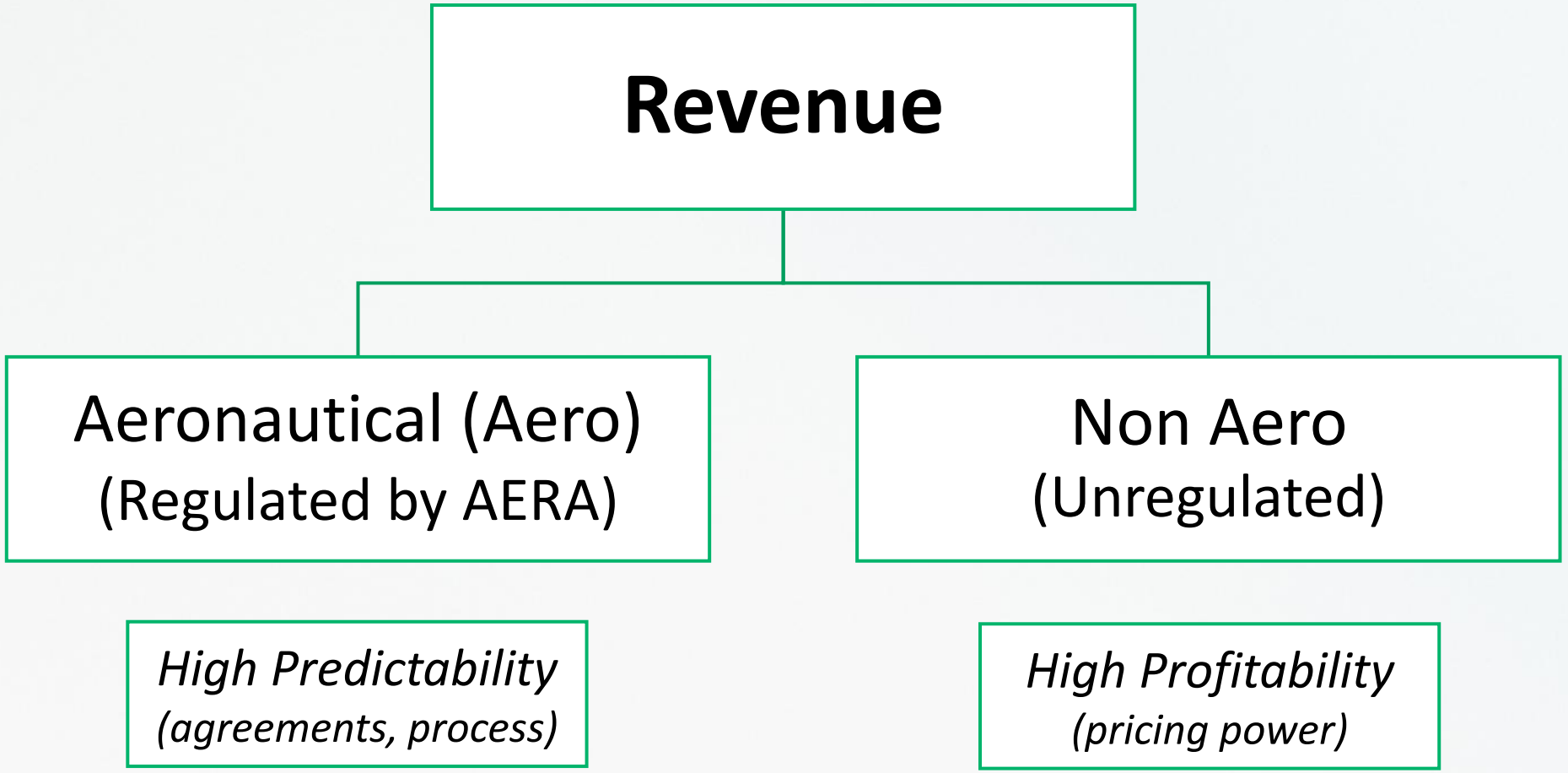
BUSINESS ANALYSIS OF AIRPORTS

REVENUE
COSTS
PROFITS AND RETURNS

REVENUE

COSTS
PROFITS AND RETURNS

Overview



Source: Annual Reports

Overview – Revenue split around the world

Operators	Pax (cr)	Aero	Non-Aero
Groupe AdP*	~36cr	46%	54%
Fraport*	~18cr	46%	54%
A'port of Thai (AOT)	~11cr	46%	54%
GMR Airports	~13cr	52%	48%
Cochin Int'l Airport	~1cr	55%	45%
Flughafen Zürich*	~5cr	58%	42%
Aena*	~36cr	63%	37%

**considering respective domestic operations only (covers majority of their business)*

Source: Annual Reports

Overview – Aero – Definition

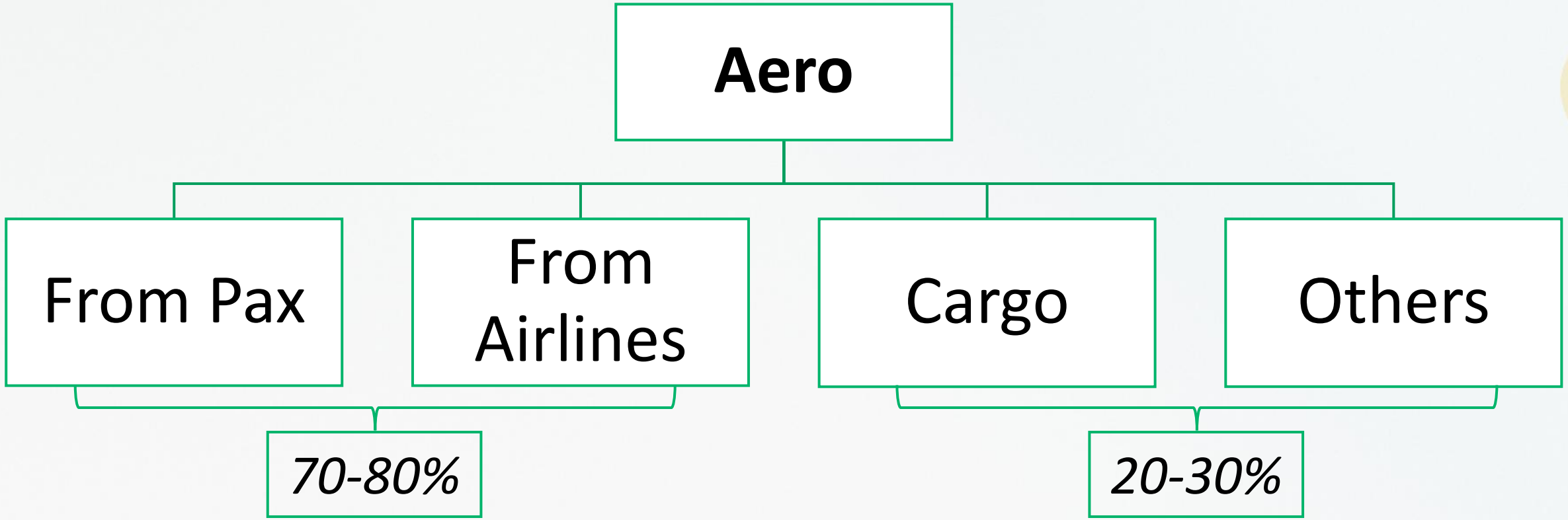
AERA has categorized the aeronautical services as under:

1. Aeronautical services provided by the airport operators;
2. Cargo, Ground Handling and Fuel Supply Services; and
3. Air Navigation Services (generally provided by AAI)

Note: Services in Point 2 can be outsourced

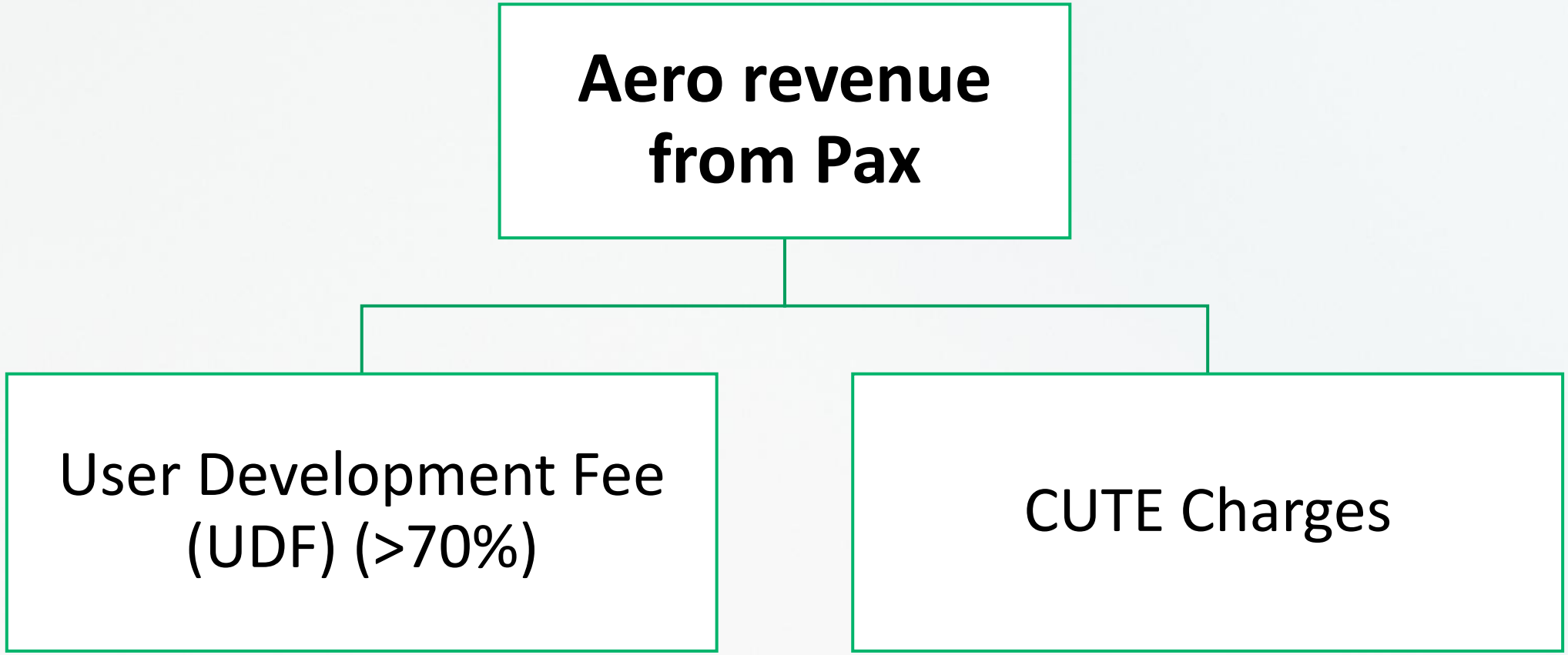
Source: AERA; Tariff Determination Documents

Overview – Aero



Source: Annual Reports

Aero – From Pax



Source: Annual Reports

Aero –

From Pax

Fare charges

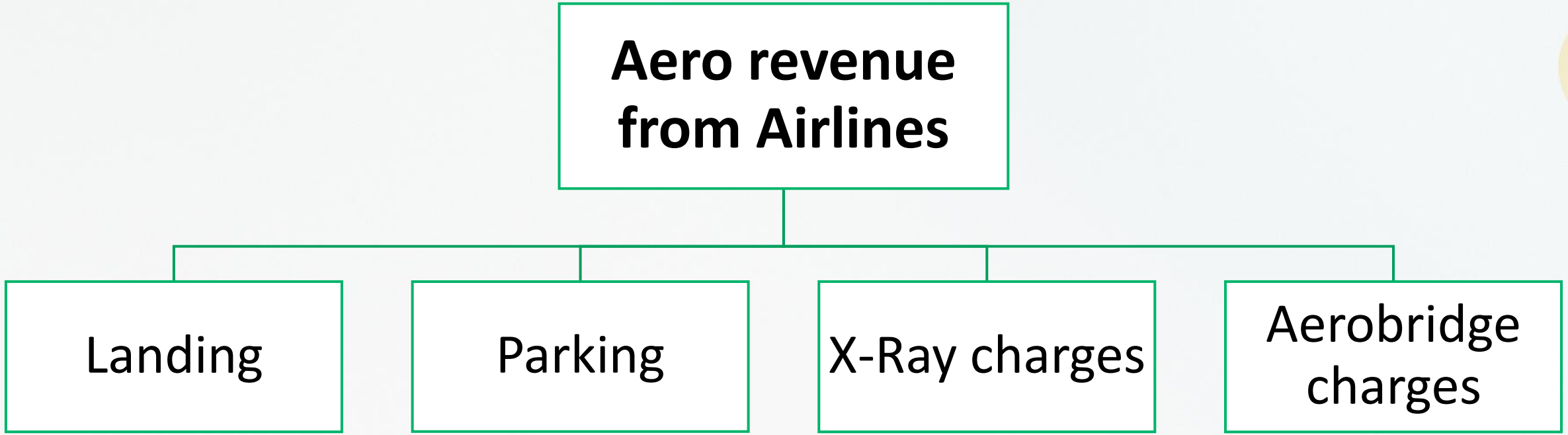
Adult 1 x ₹6,748	₹6,748

Fare breakup

Regular Fare	₹5,905
Cute Charge	₹50
Regional Connectivity Charge	₹50
Aviation Security Fee	₹236
User Development fee	₹207
GST for Maharashtra	₹300
	₹6,748

Source: Indigo

Aero – From Airlines



Source: Annual Reports

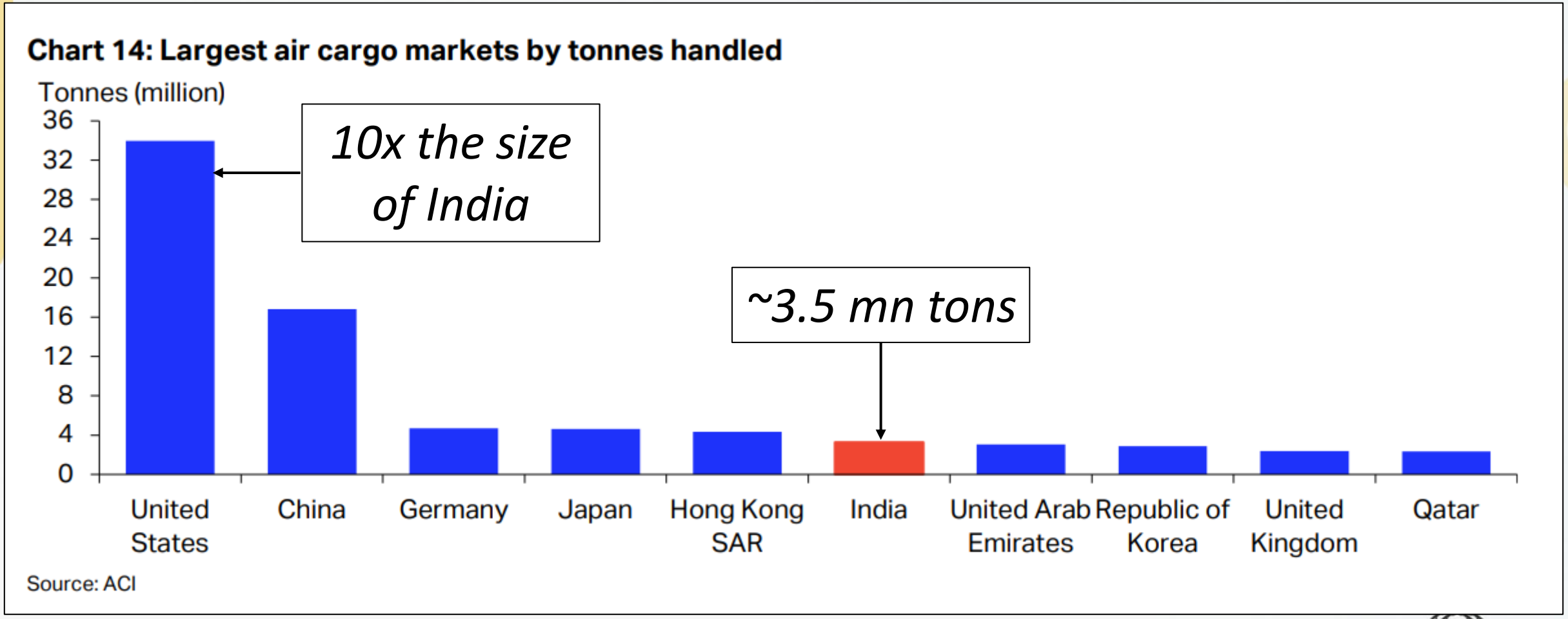
Aero – From Airlines

34. A Operating expenses	
Aviation turbine fuel	20,515.89
Lease charges - aircraft, engines and auxiliary power units (also refer note 44)	7,120.34
Aircraft repairs and maintenance	1,734.18
Supplemental lease charges - aircraft, engines and auxiliary power units	4,035.59
Consumption of stores and spares	754.19
Aviation insurance	505.98
Landing, navigation and other airport charges	5,434.38
Aircraft navigation software expenses	654.28

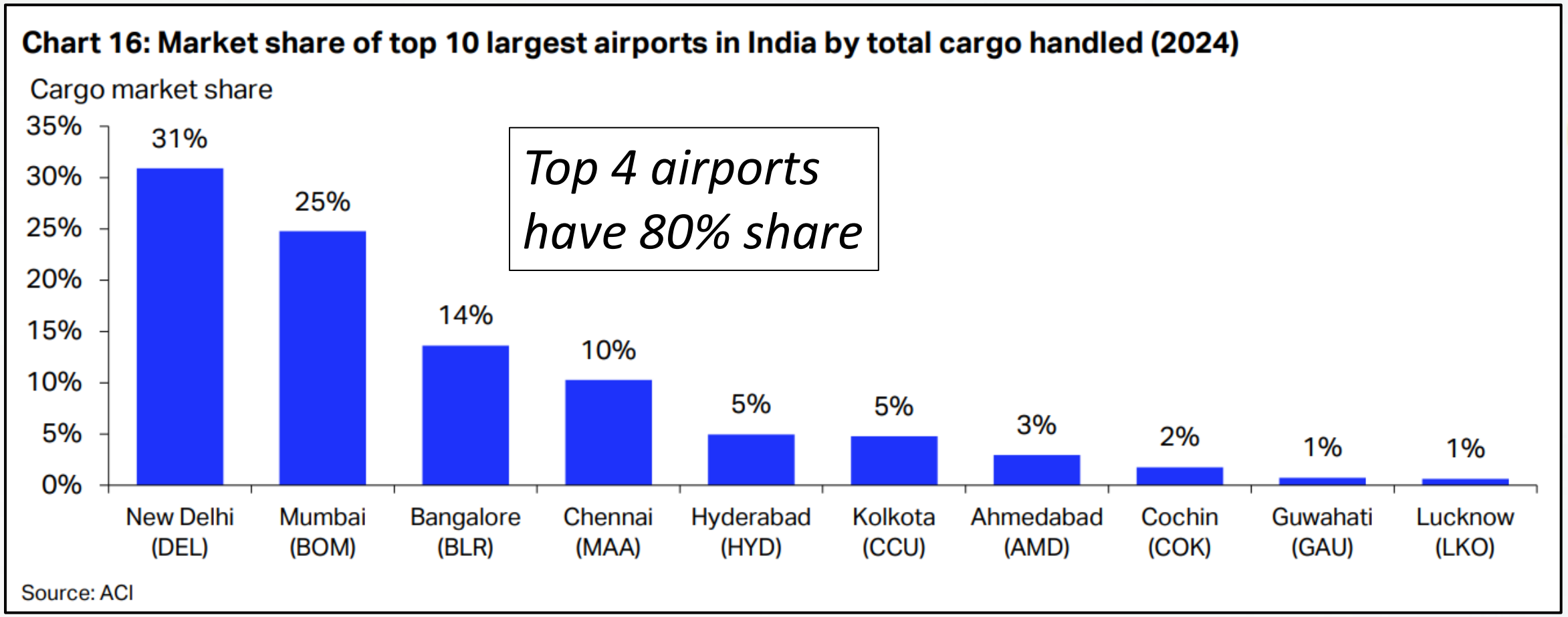
Expenses		
Aircraft fuel expenses		261,973
Aircraft and engine rentals		30,103
Supplementary rentals and aircraft repair and maintenance (net)		112,227
Airport fees and charges		57,531
Purchase of stock-in-trade (In-flight)		3,834

Source: Annual Reports – SpiceJet (top) and InterGlobe Aviation (bottom)

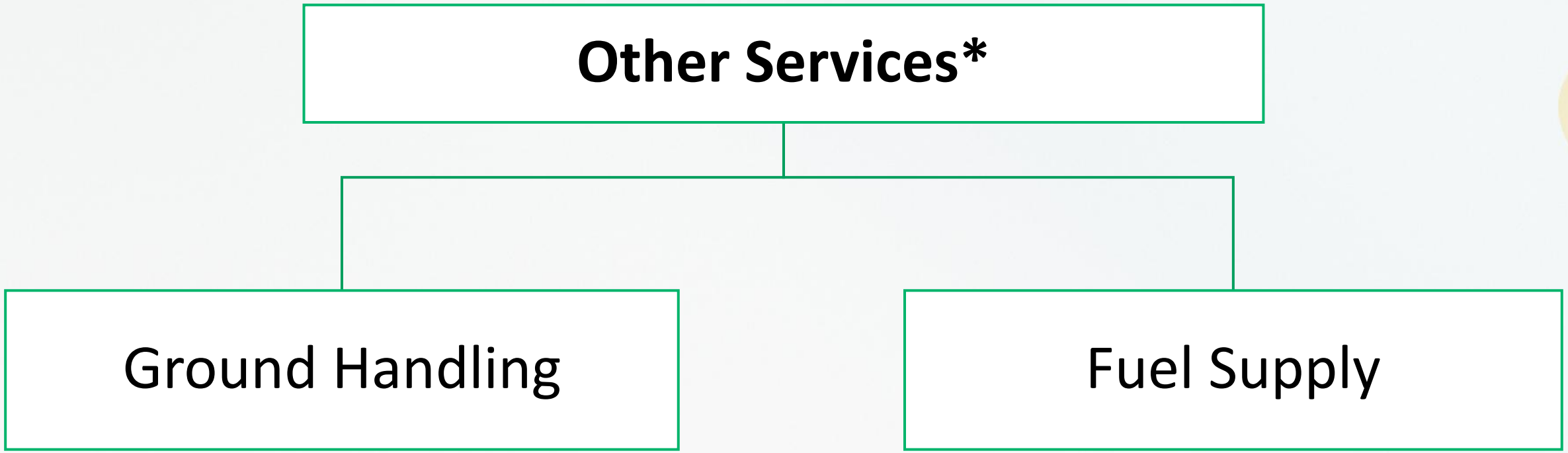
Aero – Cargo – Global volumes



Aero – Cargo – India Market share (%)



Aero – Others



**These services can either be insourced (JVs) or outsourced (royalty income)*

Source: Annual Reports

How are Aero charges regulated? – The structure

- Charges forecasted for next 5 years (called **Control Period**)
- **INPUT:** Kind of a **Cost plus model** (with few adjustments)
- **PROCESS**:
  - **Operator** submits the Proposal
  - **AERA** – Examines the Proposal --> Consultation paper --> Stakeholder Meeting -> Tariff Order
- **OUTPUT**: Avg. Required Revenue (**ARR**), Yield per pax (**YPP**) and the **Tariff Card**

Source: AERA; Tariff Determination Documents

The Costs and **The Plus** (and **2 Adjustments**)

i. COSTS:
   a. Depreciation on **Aero** Fixed Assets
   b. **Aero** Operating & Maintenance Expense
   c. **Aero** Taxes

ii. PLUS:
   a. Fixed Return on **Aero** Fixed Assets

iii. ADJUSTMENTS:
   a. Cross Subsidization using **Non Aero** (unregulated) **revenue**
   b. True Up/ True Down

**Aero fixed assets is called Regulatory Asset Base (RAB) in industry parlance.*

Source: AERA; Tariff Determination Documents

Example to explain cross subsidization adjustment

Particulars	INR
ARR after considering the Cost Plus model	1,000
Say, forecasted Non Aero revenue = INR 500	
Cross Subsidization Adjustment (30% of 500)	(150)
Net ARR	**850**

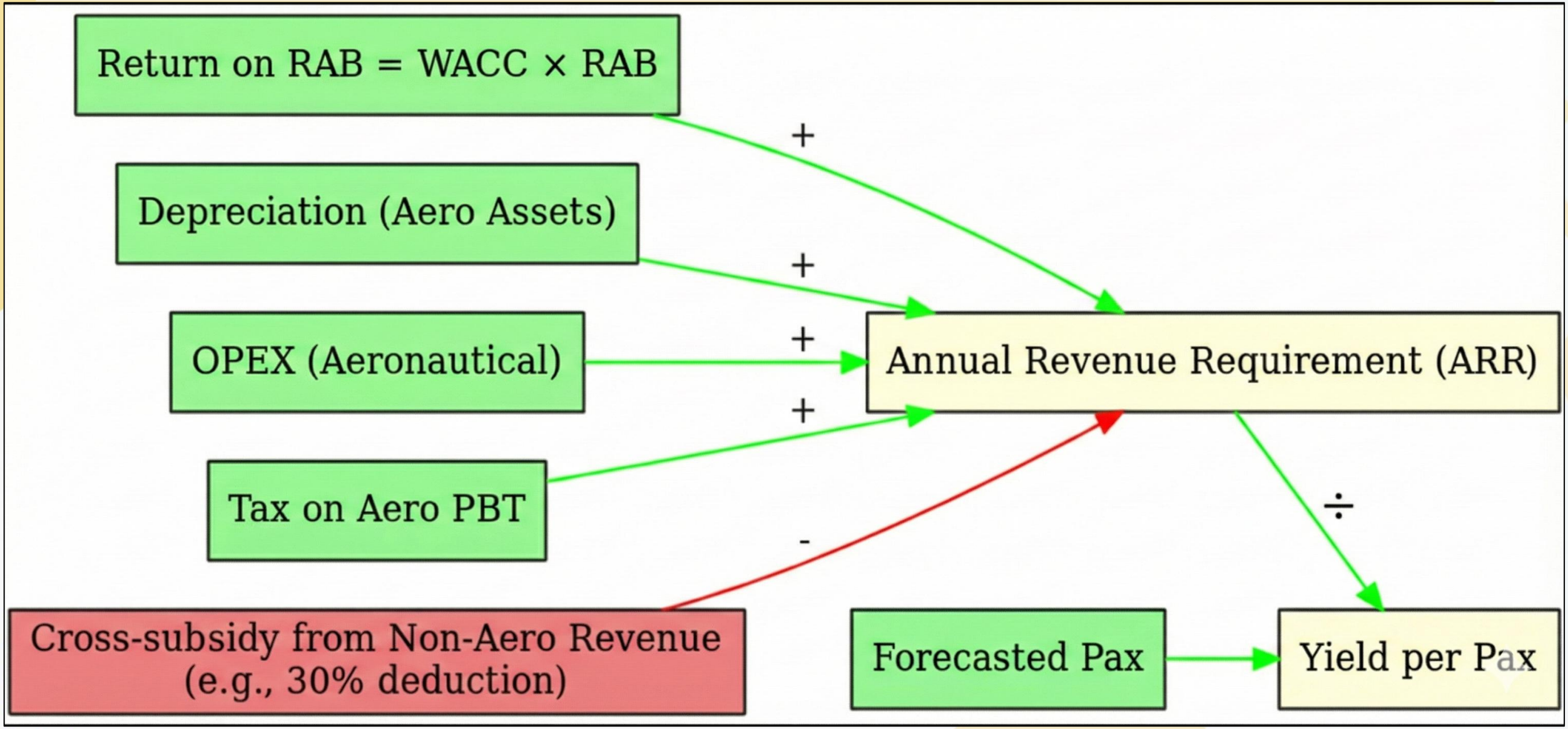
Example to explain true up/ true down adjustment

- Meaning – Adjustments for forecasting differences
- Example of such an adjustment

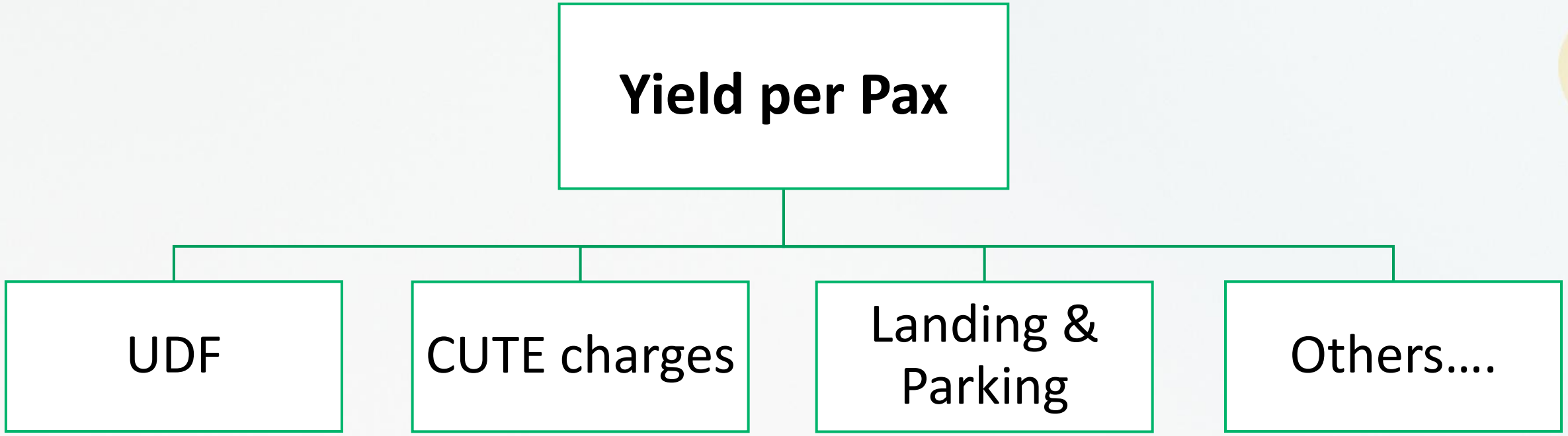
At the end of the 1st Control Period (CP)	
ARR before 1st CP	INR 100
Actual Income	INR 130
Over - recovery	INR 30

Before starting the 2nd CP	
Forecasted ARR	INR 200
True Down (Future Value)	INR (40)
Net ARR	INR 160

The formula


Return on RAB = WACC × RAB
Depreciation (Aero Assets)
OPEX (Aeronautical)
Tax on Aero PBT
Cross-subsidy from Non-Aero Revenue (e.g., 30% deduction)
+
+
+
+
-
Annual Revenue Requirement (ARR)
÷
Forecasted Pax
Yield per Pax

How are Aero charges regulated? – The output



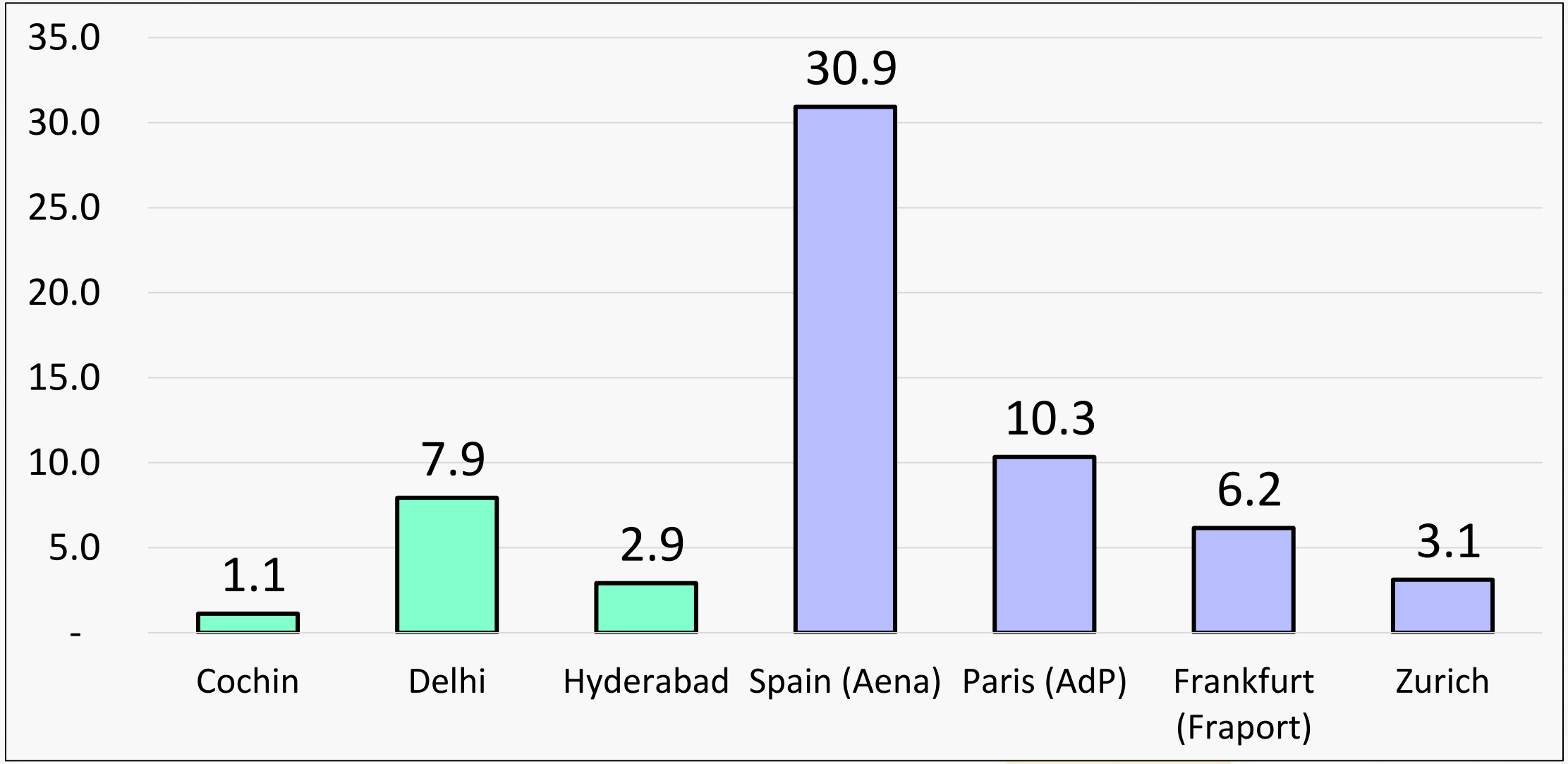
Source: AERA; Tariff Determination Documents

The output – An example

S.No.	Tariff	Unit	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	
			Tariff w.e.f. 01.10.2021	Tariff w.e.f. 01.04.2022	Tariff w.e.f. 01.04.2023	Tariff w.e.f. 01.04.2024	Tariff w.e.f. 01.04.2025	Tariff w.e.f. 01.01.2026
6	CUTE/CUSS/BRS							
	Domestic	INR per dep pax	86	86	86	86	86	86
	International (for tickets issued against INR tariff)	INR per dep pax	94	94	94	94	94	94
	International (for tickets issued against foreign currency tariff)	USD per dep pax	1.25	1.25	1.25	1.25	1.25	1.25
	Notes							
6a	For conversion of US$ to INR the RBI reference conversion rate as on the last day of the previous month for tickets issued in the first fortnight and rate as on 15th of the month for tickets issued in the second fortnight shall be adopted.							
7 (i)	User Development Fee							
	Domestic embarking passenger	INR	-	180	230	270	270	230
	International embarking passenger for tickets issued against INR tariff	INR	-	400	500	570	570	480
	International embarking passenger for tickets issued against foreign currency tariff	USD	-	5.35	6.70	7.60	7.60	6.40

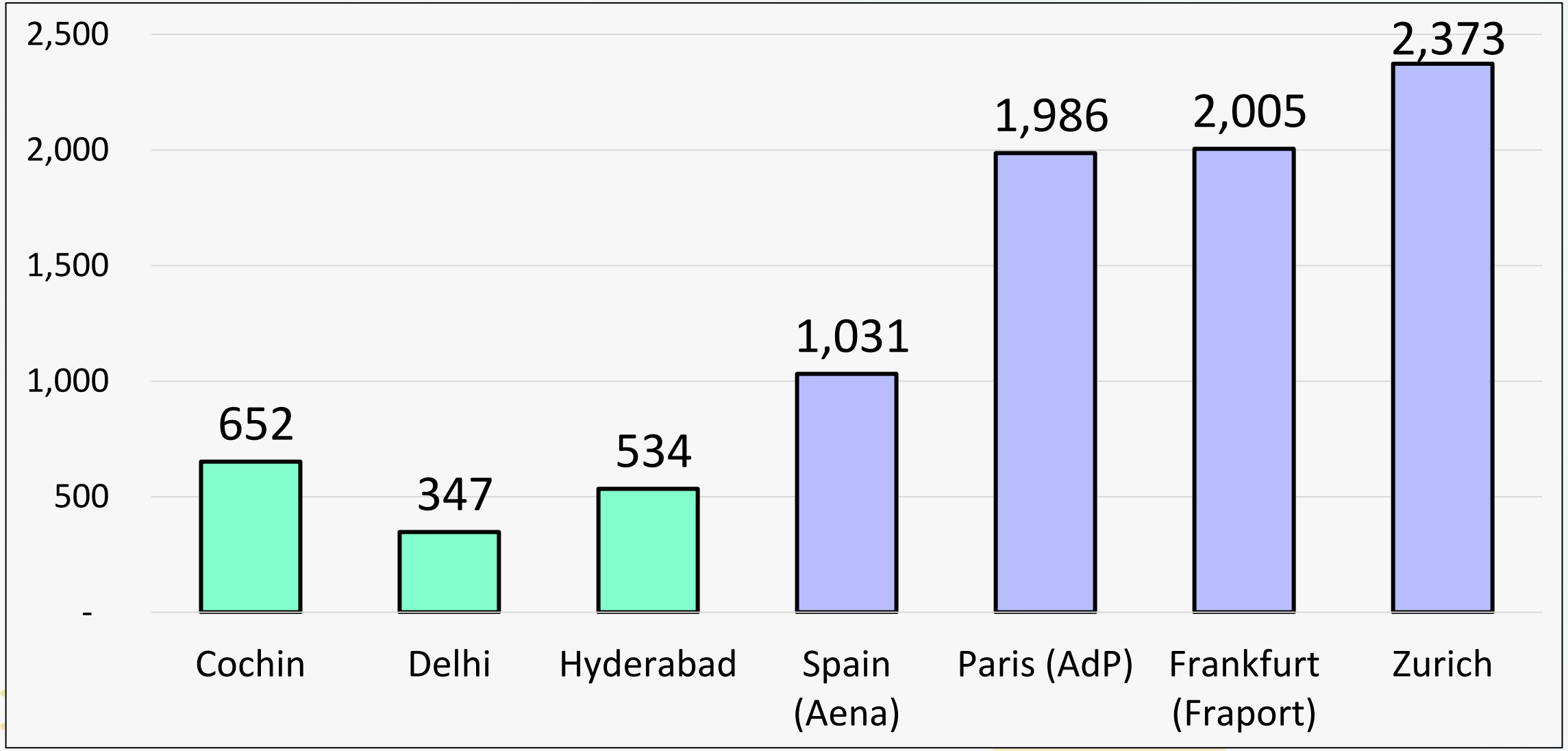
Source: AERA; Tariff Determination Documents

Aero – pax handled in primary airports (crore)



Source: Annual Reports

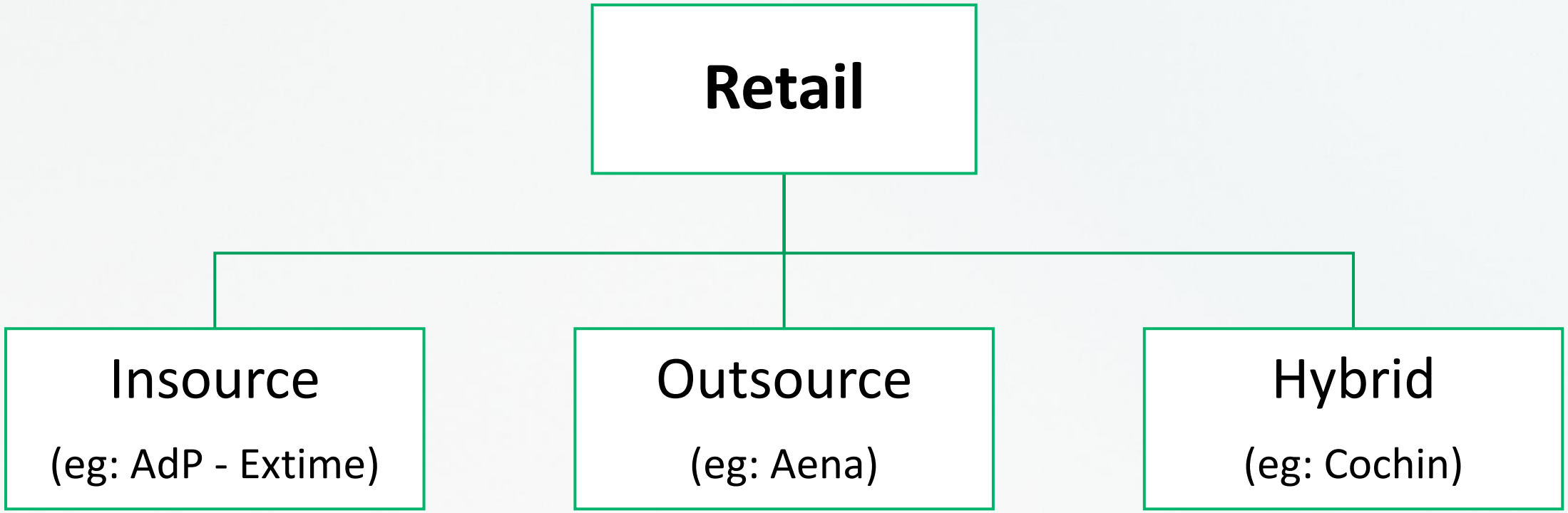
Aero – Revenue per Pax (INR)



Overview – Non Aero

Source: Annual Reports

Non Aero – Retail



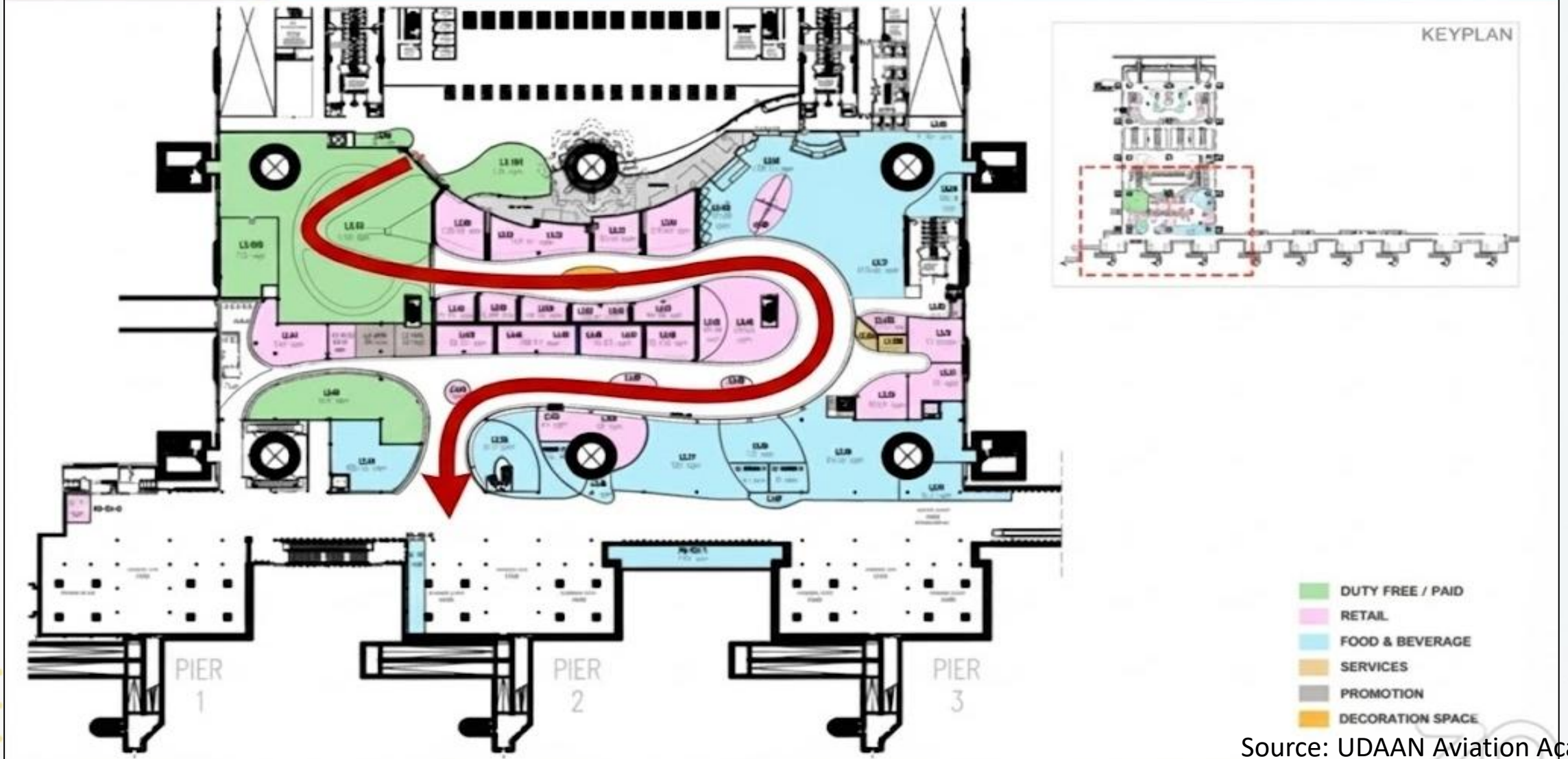
Source: Annual Reports, web search

Source: Web

London Stansted Airport

Source: UDAAN Aviation Academy

Bali Airport



Source: UDAAN Aviation Academy

Non Aero – Real Estate

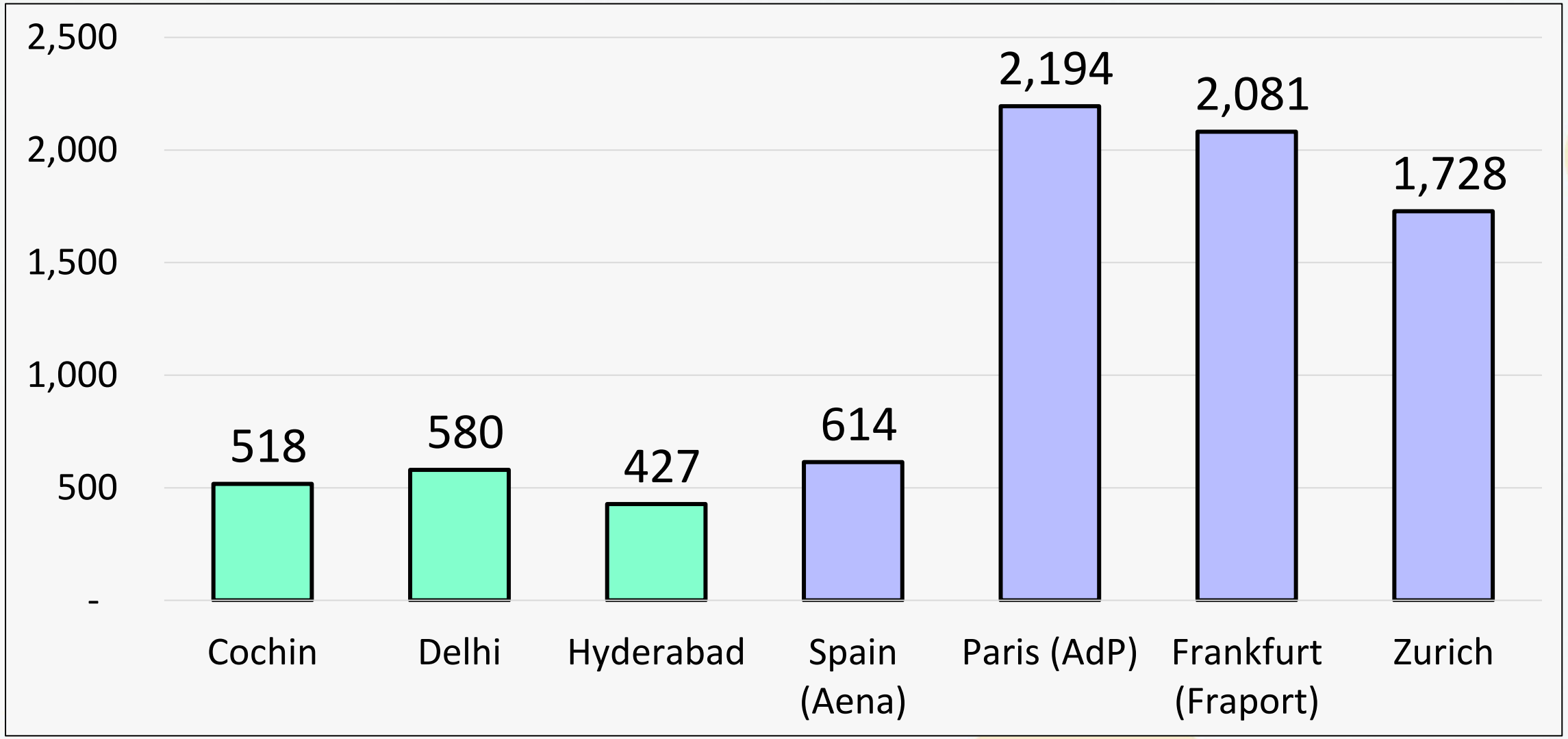
Airport	Operator	Land awarded	Land available
Delhi	GMR	~230 acre	~100 acre
Hyderabad	GMR	~1,500 acre	~1,400 acre
Goa (Mopa)	GMR	~230 acre	~230 acre
Navi Mum	Adani	~240 acre	~240 acre
Bangalore	Fairfax	~720 acre	~680 acre
Cochin	Owned	~450 acre	~100 acre

LEASED

**Majority of the projects involve Aerocity, Commercial RE and Hotels.*

Source: Annual Reports

Non Aero – Revenue per Pax (INR)



REVENUE

COSTS

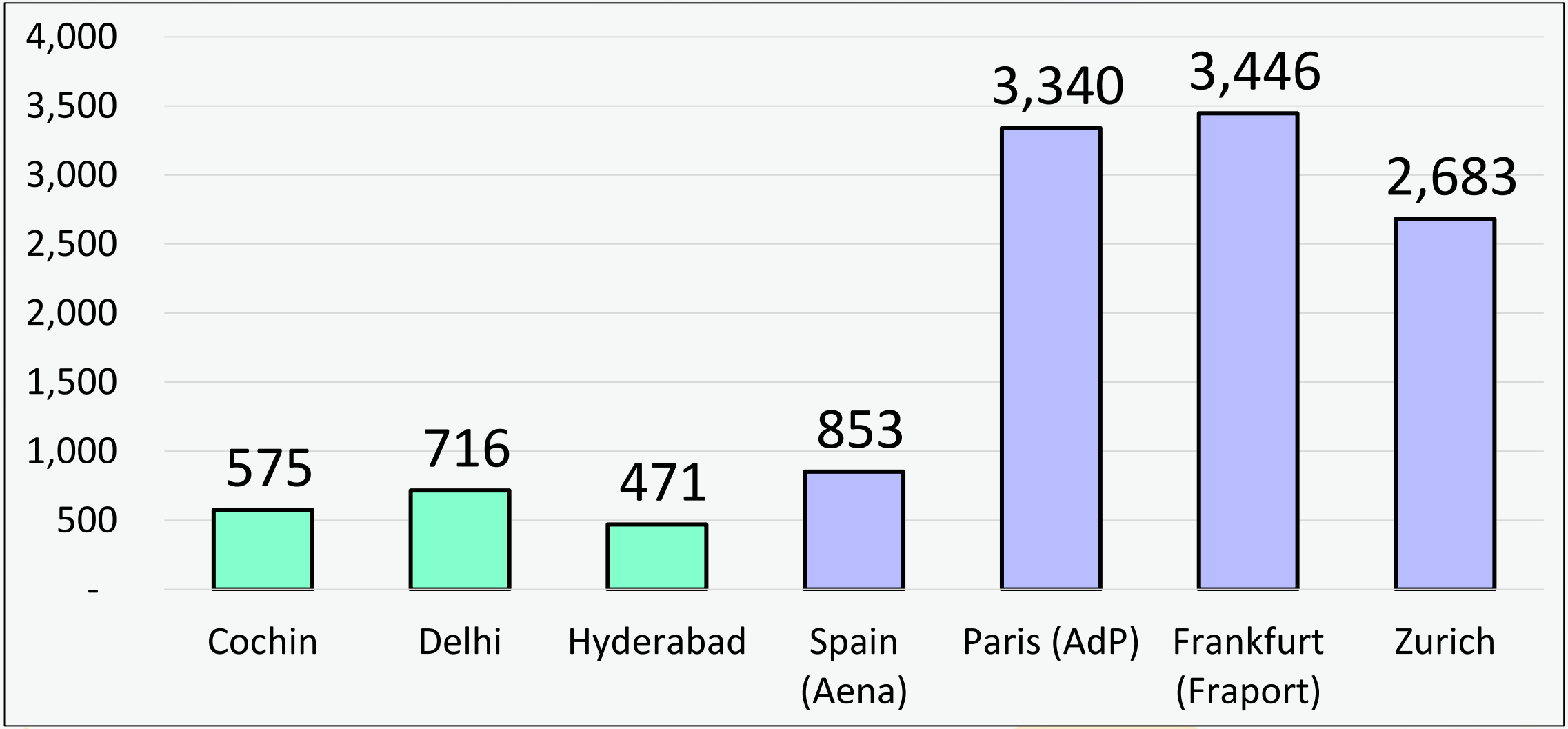
PROFITS AND RETURNS

Costs – Concession Fees

Standalone Entity	Concession type	Operator	Values
CIAL (Cochin)	NA	CIAL	Nil
GHIAL (Hyderabad)	Revenue share	GMR	4%
BIAL (Bangalore)	Revenue share	Fairfax	4%
DIAL (Delhi)	Revenue share	GMR	46%
MIAL (Mumbai)	Revenue share	Adani	38%
NMIAL (Navi Mum)	Revenue share	Adani	13%
GGIAL (Goa)	Revenue share	GMR	37%
Set of 6 airports	Per pax (avg)	Adani	INR 160 per pax
YIAPL (Noida)	Per pax	Zurich Airport	INR 401 per pax

Source: Annual Reports, Web

Costs per pax (INR)

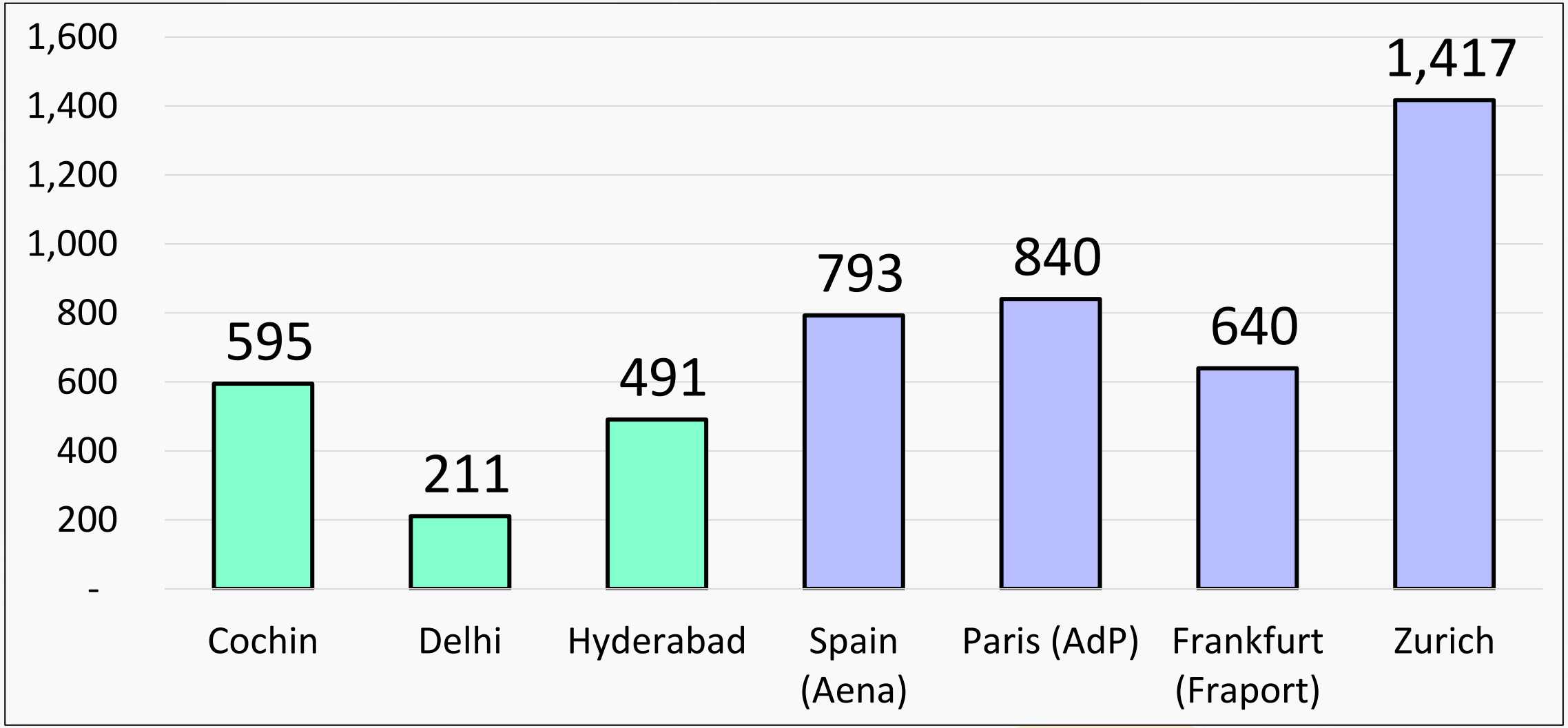


Source: Annual Reports

REVENUE
COSTS

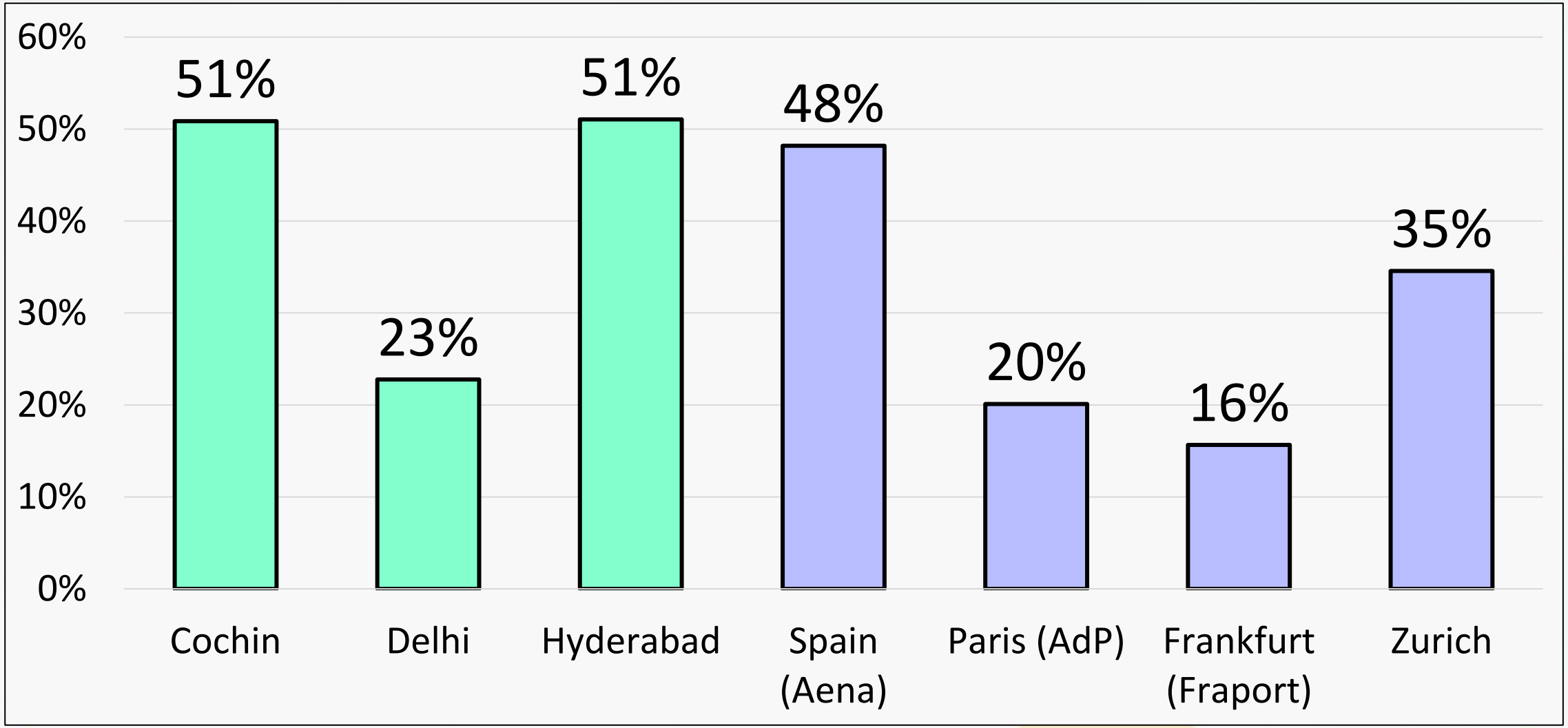
PROFITS & RETURNS

EBIT per pax (INR)



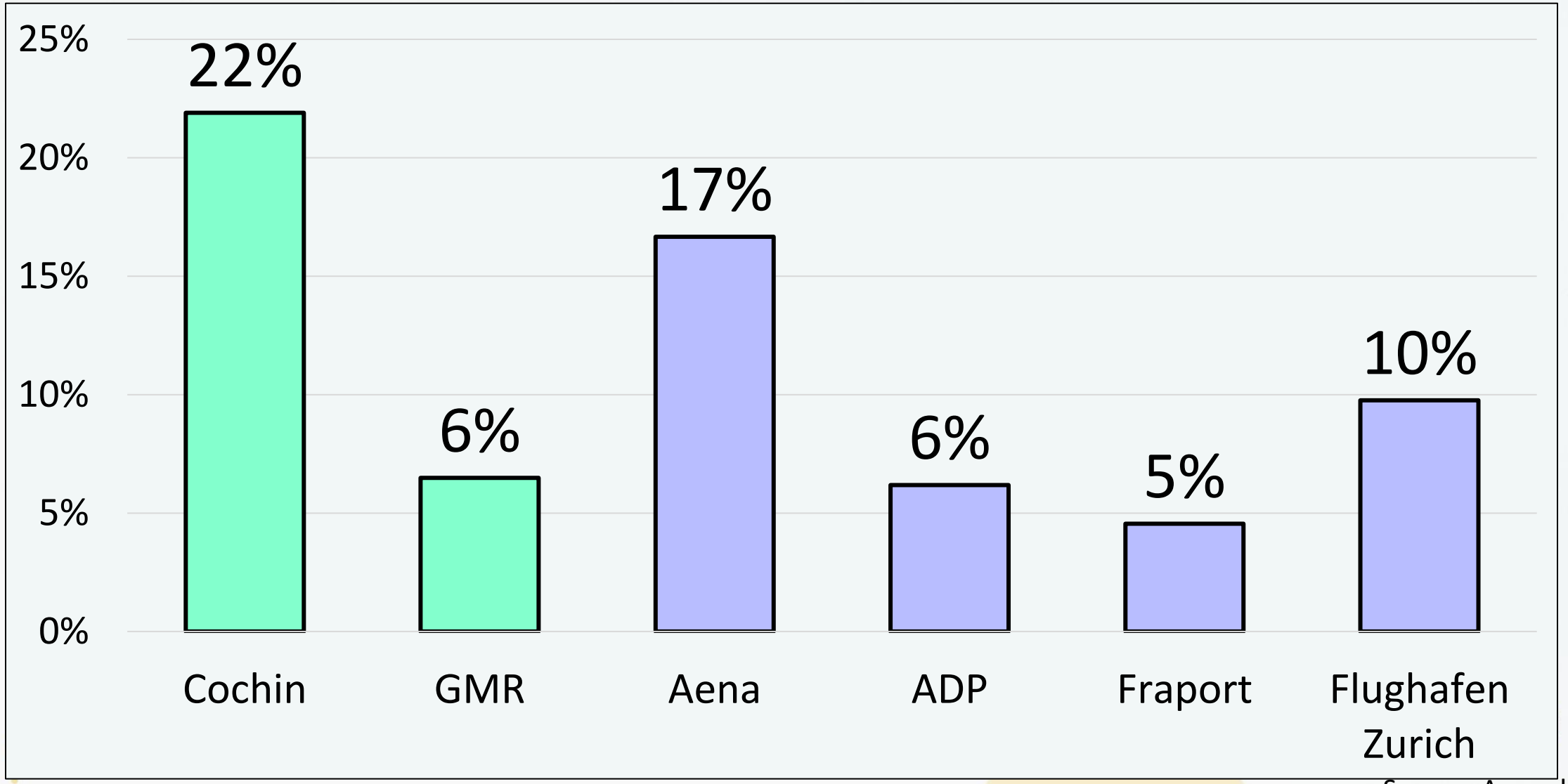
Source: Annual Reports

EBIT Margins (%)



Source: Annual Reports

ROCE (%)



Source: Annual Reports

Some of the key metrics one needs to keep in mind

1. Regulatory setup (concession terms)
2. Features of airport assets (ownership, capacity)
3. Competitive intensity (peers, other modes)
4. Nature of customers (passengers & airlines, growth outlook)
5. Aero vs Non Aero revenues (Groupe AdP)
6. Unit Economics on a per pax basis
7. Balance sheet (Debt position, capex outlook, capital allocation)

VALUATIONS

Pricing (as on Wednesday, 10th December 2025)

Operators ($mn)	Pax (cr)	M Cap	Revenue	EBITDA %	ROCE %	EV/EBITDA
GMR	13.2	11,794	1,458	37%	7%	30.3x
Cochin (Unlisted)	1.1	2,444	154	62%	22%	26.3x
Aena	37.0	40,475	6,702	60%	17%	11.1x
AdP	36.4	14,172	7,084	34%	6%	10.6x
Fraport	13.6	7,764	5,262	28%	5%	11.9x
Flughafen Zurich	4.6	9,194	1,592	57%	10%	11.9x

Source: Web

FINANCIAL OPPORTUNITIES FORUM

Thank You

For Your Attention and Participation.

Upcoming FOFs:

15 January 2026

19 February 2026

All archives available at: ppfasfof.com