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EXECUTIVE SUMMARY

- India is set to become 3rd largest aviation market by 2020.
- By 2020, passenger traffic at Indian airports is expected to increase to 421 million from 223.61 million in 2016.

- Travel and tourism to contribute US$ 423.7 billion to GDP by 2026.
- The travel and tourism industry is forecast to grow at a CAGR of 6.66 per cent to US$ 423.7 billion in 2026 from US$ 100 billion in 2017.

- Business and leisure travel to boost growth.
- Spending on business travel is estimated to increase to US$ 39.88 billion in 2026 from US$ 10.26 billion in 2017, while on leisure travel is forecast to rise to US$ 203.5 billion in 2026 from US$ 181.65 billion in 2017.

Source: World Travel and Tourism Council, Airport Authority of India
ADVANTAGE INDIA
Advantage India

- Rising working group and widening middle class demography is expected to boost demand
- India plans to increase the number of airports to 250 by 2030 to cater to growing leisure and business travel
- Freight traffic also likely to go up as trade with the rest of the world increases

- Growth in aviation accentuating demand for MRO facilities
- Expenditure in MRO accounts for 13-15 per cent of total revenues; it is the second-highest expense after fuel cost
  - By 2020, the MRO industry is likely to grow over US$ 1.5 billion from US$ 0.5 billion currently

- Investments totalling US$ 12.1 billion in the airport sector are to be made during the 12th Five Year Plan (2012-17); of these, private investments are expected to total US$ 9.3 billion
- Growing private sector participation through the Public - Private Partnership (PPP) route

- The government has been encouraging private sector participation
- Foreign investment up to 49 per cent is allowed under automatic route in scheduled air transport service, regional air transport service and domestic scheduled passenger airline.

Notes: FDI – Foreign Direct Investment, MRO – Maintenance, Repair and Overhaul; FY – Indian Financial Year (April – March)
Source: Ministry of Civil Aviation, MRO India
MARKET OVERVIEW
India is the 9th largest civil aviation market in the world. In FY17, domestic passenger traffic witnessed a growth rate of 21.5 per cent.

In FY17, airports in India witnessed a domestic passenger traffic of about 100 million people.

Investments worth US$ 6 billion are expected in the country’s airport sector in 5 years.

India’s civil aviation market is set to become the world’s 3rd* largest by 2020 and expected to be the largest by 2030.

Note: * India ranks after the US and China FY – Indian Financial Year (April – March), mn km – Million Kilometers
Source: Airports Authority of India, Ministry of Statistics and Programme Implementation, Ministry of Civil Aviation

| Scheduled airlines: distance flown (mn km) | 199 | 1,700 (FY17) |
| Non-scheduled airlines in operation | 39 | 112 (FY17) |
| Number of aircrafts | 225 | 1,657 (FY16) |
| Cargo Handled | 703,000 | 2,930,000 (FY17) |
| Number of airports | 50 | 125 (FY17) |
Aviation

INDIA HAS 464 AIRPORTS AND AIRSTRIPS, OF WHICH 125 AIRPORTS ARE OWNED BY AAI

Airports Authority of India (AAI) was –
- Established in 1994 under the Airports Authority Act
- Responsible for developing, financing, operating and maintaining all government airports
- The Aircraft Act (1934) governs remaining airports

**Note:** AAI – Airports Authority of India, JV – Joint Venture, FY – Indian Financial Year (April – March)
**Source:** Airports Authority of India

For updated information, please visit www.ibef.org
**SIX MAJOR AIRLINES OPERATE IN THE COUNTRY**

<table>
<thead>
<tr>
<th>Airline</th>
<th>Market Share</th>
<th>Passenger Load Traffic</th>
</tr>
</thead>
<tbody>
<tr>
<td>SpiceJet</td>
<td>13.2%</td>
<td>91.4%</td>
</tr>
<tr>
<td>GoAir</td>
<td>8.9%</td>
<td>84.8%</td>
</tr>
<tr>
<td>Jet Airways</td>
<td>15.4%</td>
<td>79.8%</td>
</tr>
<tr>
<td>Jetlite</td>
<td>2.5%</td>
<td>79.2%</td>
</tr>
<tr>
<td>Air India</td>
<td>13%</td>
<td>74.6%</td>
</tr>
<tr>
<td>Indigo</td>
<td>39.9%</td>
<td>81.6%</td>
</tr>
</tbody>
</table>

*Source: Note: Market Share as on March’17 and Load Data for the month of March’17 as published by Directorate General of Civil Aviation*
THE SIX MAJOR AIRPORTS IN THE COUNTRY

- **Delhi**
  - Passenger traffic handled in FY16: 48 million;
  - FY17: 57.7 million

- **Mumbai**
  - Passenger traffic handled in;
  - FY16: 41.7 million;
  - FY17: 45.2 million

- **Bengaluru**
  - Passenger traffic handled in;
  - FY16: 19 million;
  - FY17: 22 million

- **Kolkata**
  - Passenger traffic handled in
  - FY16: 12.4 million;
  - FY17: 14.35 million

- **Hyderabad**
  - Passenger traffic handled in
  - FY16: 12.4 million
  - FY17: 15.24 million

- **Chennai**
  - Passenger traffic handled in FY16:
  - 15.2 million;
  - FY17: 16.7 million

*Note: FY – Indian Financial Year (April – March)*

*Source: AAI*
PASSENGER TRAFFIC HAS EXPERIENCED HEALTHY GROWTH … (1/2)

- Witnessing a growth of 18.5 per cent over the previous year, total passenger traffic stood at a 264.97 million in FY17, which was recorded at 223.6 million in FY16 in India.

- Growth in passenger traffic has been strong since the new millennium, especially with rising incomes and low-cost aviation; during FY06-17, passenger traffic grew at a CAGR of 12.39 per cent in the country.

**Notes:** CAGR – Compound Annual Growth Rate, FY – Indian Financial Year (April – March)

**Source:** Association of Private Airport Operator, Airports Authority of India
PASSENGER TRAFFIC HAS EXPERIENCED HEALTHY GROWTH … (2/2)

- Domestic passenger traffic expanded at a CAGR of 13.52 per cent over FY06–17.
- According to Directorate General of Civil Aviation, domestic passenger traffic witnessed growth at a rate of 21.5 per cent in FY17, as against 21.24 per cent in FY16.
- International passenger traffic registered growth at a CAGR of 9.27 per cent over FY06-17.
- During FY17, international passenger traffic increased by 8.5 per cent.

**Notes:** YoY – Year on Year, FY – Indian Financial Year (April – March)

**Source:** Airports Authority of India, Ministry of Civil Aviation

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**Growth in domestic passenger traffic has been robust**

![Graph showing growth in domestic passenger traffic from FY06 to FY17]

**Growth in passenger traffic set to remain strong in future**

![Graph showing projected growth in passenger traffic from FY06 to FY17E]

For updated information, please visit www.ibef.org
FREIGHT TRAFFIC GREW AT A CAGR OF 6.8 PER CENT DURING FY06 TO FY16 … (1/2)

- Total freight traffic registered a CAGR of 7.08 per cent over FY06-17.
- During FY06-17, domestic freight traffic increased at a CAGR of 7.95 per cent, while international freight traffic grew at a CAGR of 6.58 per cent during the same period.
- In FY17, domestic freight traffic stood at 1,123.18 million tonnes, while international freight traffic was at 1,855.06 million tonnes.
- During FY17, domestic freight traffic increased at 7.39 per cent while international freight traffic increased at 11.86 per cent in comparison with FY16.
- By 2023, total freight traffic is expected to touch 4.14 million tonnes exhibiting growth at a CAGR of 7.27 per cent between FY2016 and FY23. In addition, international freight traffic is expected to grow at a CAGR of 7.13 per cent while domestic freight traffic is expected to grow at a CAGR 7.50 per cent between FY2016 and FY23.

**Source:** Airports Authority of India
Freight traffic on airports in India is expected to cross 11.4 million tonnes by 2032.

Growth in import and export in India will be the key driver for growth in freight traffic as 30 per cent of total trade is undertaken via airways.

Airports across the globe are planning on increasing their spending on new technology to keep up with surging passenger traffic, which is expected to double to 370 million by 2020. The anticipated double digit growth would make India as the world’s 3rd largest aviation market by 2020.

Fliers would soon be able to use biometric details for security checks at airports after good feedback from a pilot project.

Notes: FY – Indian Financial Year (April – March)
Source: Airports Authority of India
GROWTH IN AVIATION HAS ALSO LED TO HIGHER AIRCRAFT MOVEMENT … (1/2)

- During FY07-17, growth in aircraft movement was recorded at a CAGR of 5.59 per cent
- In FY17, total aircraft movement increased at a YoY of 3.91 per cent, as compared to FY16.
- In FY17, total aircraft movement stood at 1.86 million
- In May 2017, Air India has decided to launch flights to three new destinations in the U.S., Stockholm, Nairobi and Tel Aviv in 2017.

Notes: CAGR – Compound Annual Growth Rate FY – Indian Financial Year (April – March) YoY – Year on Year
Source: Association of Private Airport Operators, Airports Authority of India
GROWTH IN AVIATION HAS ALSO LED TO HIGHER AIRCRAFT MOVEMENT … (2/2)

- During FY07-17, domestic aircraft movement increased at a CAGR of 5.59 per cent, while international aircraft movement expanded at 5.39 per cent CAGR over the same period.
- During FY17, the total number of domestic aircraft movement increased to 1.86 million, as compared to FY16.

Notes: YoY – Year on Year; FY – Indian Financial Year (April – March) CAGR – Compound Annual Growth Rate
Source: Association of Private Airport Operators
AAI DOMINATES, BUT PRIVATE SECTOR PARTICIPATION IS RISING

- Until 2013, AAI was the only major player involved in developing and upgrading airports in India
- Post liberalisation, private sector participation in the sector has been increasing
- Private sector investment increased to US$9.3 billion during the 12th Five Year Plan from US$ 5.5 billion in the previous plan

Notes: AAI – Airports Authority of India
### Porter’s Five Forces Framework Analysis

#### Threat of Substitutes
- **Low** - Threat remains low in this sector also as no other means of transport is as swift and convenient as airlines
  - It saves time

#### Bargaining Power of Suppliers
- **High** - Bargaining power of suppliers remain high as there are only few fuel and aircraft suppliers
  - Talent pool of pilots, engineers and other staff is also limited

#### Competitive Rivalry
- **High** - Competition among major players is very high, especially in LCC’s (Low cost carrier) section because the airlines compete for the middle income group customers and passengers of air-conditioning segment of railways. This group has low brand loyalty and is highly price sensitive

#### Threat of New Entrants
- **Low** - Threat remains low because of the nature of the industry (Regulatory hurdles, Capital-intensive)
  - Air Asia India has been granted DGCA approval (Price War)
  - Air Asia started services to Bagdogra and Srinagar from Delhi.

#### Threat of Substitutes
- **Low** - Threat remains low in this sector also as no other means of transport is as swift and convenient as airlines
  - It saves time

#### Bargaining Power of Buyers
- **Low** - Bargaining power of customers remains low as the demand for low cost air travel is quite high
  - The costs of switching airplanes and services offered hardly differ with each other

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**Source:** Central Asia-Pacific Aviation
RECENT TRENDS AND STRATEGIES
**NOTABLE TRENDS IN THE AIRPORTS SECTOR**

<table>
<thead>
<tr>
<th>Rising private participation and Investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Currently, five international airports have been completed successfully under PPP mode</td>
</tr>
<tr>
<td>▪ Investment made by private sector during the 12th Five Year Plan (2012–17) is expected to increase by 69.1 per cent to US$ 9.3 billion over that during the 11th Five Year Plan</td>
</tr>
<tr>
<td>▪ Four existing airports and two greenfield projects will be offered on PPP basis which is expected to attract investments from private players</td>
</tr>
<tr>
<td>▪ Delhi International Airport, a GMR led consortium, signed a land license agreement with Airbus to set up India’s 1st full flight simulator at the Aerocity, Indira Gandhi International (IGI) Airport.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Greater use of non-scheduled airlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Rising business activity leading to higher demand for non-scheduled airlines</td>
</tr>
<tr>
<td>▪ As on July 2017, there are 112 operators (NSOP)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>User development fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Increasing use of development fees by airport developers and operators</td>
</tr>
<tr>
<td>▪ Airport Development Fee: Delhi, Mumbai airports to fund expansion</td>
</tr>
<tr>
<td>▪ User Development Fee: Hyderabad, Bengaluru airports for maintenance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Focus on non-aeronautical revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Indian airports are emulating the SEZ-aerotropolis model to enhance revenues; focus on revenues from retail, advertising, vehicle parking, etc.</td>
</tr>
<tr>
<td>▪ With the initiative of displaying “Art for a cause,” Nagpur airport became India’s 1st airport to take up the cause of empowering the girl child in a unique way.</td>
</tr>
<tr>
<td>▪ Absence of complementary meals in low-cost airlines have boosted the F&amp;B retail segment at airports</td>
</tr>
</tbody>
</table>

*Notes: FY – Indian Financial Year (April – March) NSOP – Non Schedule Operators Permit
Source: DGCA*
## STRATEGIES ADOPTED

### Expansion
- Expansion of CAPA; further, rise of LCC’s was also supported by the exit of Kingfisher, which is on the verge of insolvency
- Capacity will also increase with new terminals coming up in Mumbai, Bengaluru, Chennai and Kolkata
- Indian carriers to double their fleet capacity by 2020 to around 800 aircrafts

### Ancillary services
- Indian LCC’S are looking forward to increase their ancillary services, without tampering their business models. This includes services like lounge access, priority boarding, customer loyalty memberships and customer meals
- The AAI has allowed the BRTS buses to foray in the airport premises in Surat. The initiative is to allow the passengers to reach airports on time and allow smoother transit.
- In April 2017, Indigo Airlines entered the record books by registering a record breaking 900 flights a day, most by any Indian airline.

### Increasing operations
- Indian LCC’s are looking forward to increase their low cost products on routes which will take up to four hours (shorter international routes)
- This will allow deleveraging of domestic fleet, increasing aircraft utilisation and improving commercial performance
- Chennai, with its strategic location in South India has a strong potential to become a hub, with connecting flights to Gulf and across South East Asia

### Government’s push
- In June 2017, the Ministry of Civil Aviation launched DigiYatra Platform through which travellers will be able to access information on all the stakeholders and vice-versa. The ‘Digi-Yatra’ is an industry led initiative coordinated by the Ministry in line with the government’s vision of Digital India.
- In April 2017, the central government launched UDAN – the regional connectivity scheme for civil aviation – from Shimla airport. Under the scheme, the flights are available from Nanded, Shimla and Kadapa airports.
- In June 2017, the government announced that it is planning to allow relaxations under the UDAN scheme hoping to increase air connectivity to undeserved routes. The airlines operators will be allowed to bid for a route connecting an airport which is underserved, and to allow operators to bid for a route which are separated by less than 150 kms.

*Source: Central Asia-Pacific Aviation*
GROWTH DRIVERS
STRONG DEMAND AND POLICY SUPPORT DRIVING INVESTMENTS

Growing demand
- Expanding middle income group and working population
- Rising domestic and foreign tourists and travellers
- Strong growth in external trade

Inviting

Policy support
- Greater government focus on infrastructure
- Increasing liberalisation, Open Sky Policy
- Policy sops, FDI encouragement

Resulting in

Increasing investments
- AAI driving large modernisation, development projects; expansion and upgradation of existing airports; development of low-cost airports
- Increasing private sector participation, increasing greenfield projects
- Strong projected demand making returns attractive
PASSENGER TRAFFIC SPIKES UP AS DEMAND FOR AIR TRAVEL SOARS

- Improving tourism infrastructure
- Successful ad campaigns abroad
- The share of travel and tourism in India’s GDP was depicted to be 9.6 per cent in 2017E; and is expected to grow at a CAGR of 7.2 per cent per annum between 2017E-2027
- India is one of the fastest growing economies
- Overall, leisure travel and tourism spending inclined at a CAGR of 15.74 per cent between 2007-17E.
- Emergence of business hubs like Mumbai (Finance), Bengaluru (IT), Chennai (IT), Delhi (Manufacturing, IT) is likely to boost business travel as well.

Notes: IT – Information Technology, E – Estimated
Source: World Travel and Tourism Council, Make in India, Global Business Travel Association
MORE PASSENGERS AND RISING TRADE AIDING HIGHER AIRCRAFT MOVEMENT

- Growing trade benefits of freight movement
- Over FY09-17,
  - India’s exports expanded at a CAGR of 4.47 per cent to US$ 276.28 billion in FY17.
  - Imports registered a CAGR of 2.53 per cent which reached to US$ 75.9 billion in FY17.
- Growing trade augurs well for airports as they handle about 30 per cent of India’s total trade (by value)

**Notes:** CAGR – Compound Annual Growth Rate, FY – Indian Financial Year (April – March) 1- April 2016 - February 2017

**Source:** Ministry of Commerce
## Greater focus on infrastructure

- GOI envisions airport infrastructure investment of US$ 11.4 billion under the 12th Five Year Plan (2012-17)
- The Indian government is planning to invest US$ 1.83 billion for development of airport infrastructure along with aviation navigation services by 2026.

## Liberalisation, Open Sky Policy

- With the opening of the airport sector to private participation, six airports across major cities are being developed under the PPP model
- Currently 60 per cent of airport traffic is handled under the PPP model, while the remaining 40 per cent is managed by the AAI
- Increased traffic rights under bilateral agreements with foreign countries
- India signed its 1st open skies agreement with Greece
- In May 2017, India and Spain signed an MoU for cooperation in civil aviation industry. The MoU would spur greater trade, investment, tourism and cultural exchanges between both the countries.
- In April 2017, Brussels Airlines launched its service from Brussels to Mumbai, its 1st flight to Asia. The launch is a part of Lufthansa’s group strategy to expand its business in India.

## Encouragement to FDI

- The GOI has allowed 100 per cent FDI under automatic route for greenfield projects, whereas, 74 per cent FDI is allowed under automatic route for brownfield projects.
- 100 per cent FDI is allowed under automatic route in scheduled air transport service, regional air transport service and domestic scheduled passenger airline. FDI over 49 per cent would require government approval.
- Approval of 49 per cent FDI in aviation for foreign carriers.

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**Notes:** India currently has bilateral air service agreements with 104 countries. These include Brazil, 27 members of the EU, and China. In 2008 traffic rights were been enhanced with Mexico, Saudi Arabia, Netherlands, Qatar, Iran, Japan and Turkey. FDI – Foreign Direct Investment, GOI – Government of India
In the Union Budget for FY17, Government of India, for the purpose of equity infusion has earmarked US$ 255.86 million for Air India Limited.

• Also, a budget of about US$ 14.98 million has been allocated to Airports Authority of India, of which US$ 4.29 million has been attributed towards Pakyong, Sikkim project.

• The government has planned to allocate a sum of US$ 11.80 million to Directorate General of Civil Aviation to implement various schemes.

• The government has also supported the Bureau of Civil Aviation Security with US$ 9.71 million to meet their expenditure.

• The Civil Aviation Ministry to receive budgetary funds of US$ 768.64 million an increase of over 22 per cent in the Union Budget for 2017 as compared to the funds allocated in Union Budget 2016

Notes: AAI – Airports Authority of India, DGCA – Directorate General of Civil Aviation, FY – Indian Financial Year (April – March)

Source: Ministry of Civil Aviation
### AAI LEADS THE WAY IN AIRPORTS INFRASTRUCTURE INVESTMENT

<table>
<thead>
<tr>
<th>Metro airports</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The AAI aims to bring around 250 airports under operation across the country by 2020</td>
</tr>
<tr>
<td>• The AAI has developed and upgraded over 23 metro airports in the last 5 years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-metro airports</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The AAI plans to spend US$ 1.3 billion on non-metro projects over the 5 years (2013–17); mainly focusing on the modernisation and upgradation of airports; New airports at Itanagar, Kohima and Gangtok are also planned.</td>
</tr>
<tr>
<td>• The Government of Andhra Pradesh is to develop greenfield airports in six cities-Nizamabad, Nellore, Kurnool, Ramagundam, Tadepalligudem and Kothagudem under the PPP model.</td>
</tr>
<tr>
<td>• Upfront subsidy has been proposed through which non-metro airports would be funded by imposing 2 per cent levy on both domestic and international airfares.</td>
</tr>
<tr>
<td>• About 22 airports to get connected under regional connectivity scheme of AAI.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Northeast India</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Over 30 airport development projects are under progress across various regions in Northeast India</td>
</tr>
<tr>
<td>• AAI plans to develop over 20 airports in tier II and III cities in next 5 years</td>
</tr>
<tr>
<td>• The AAI plans to develop Guwahati as an inter-regional hub and Agartala, Imphal and Dibrugarh as intra-regional hubs</td>
</tr>
</tbody>
</table>
PRIVATE SECTOR INVESTMENT IN AIRPORTS RISING … (1/2)

- Recourse to the Public Private Partnership (PPP) model has boosted private sector investments in airports.
- PPP route for five international airports (Delhi, Mumbai, Cochin, Hyderabad, Bengaluru) most noteworthy.
- In Union Budget 2017, Government of India has decided to develop select airports in tier 2 cities under PPP model in order to attract investments from private players.
- Increasing share of private sector in equity component of major airports –
  - 74 per cent private share holding in IGI Airport (Delhi) - owned majorly by GMR (54 per cent), Fraport AG (10 per cent), Eraman Malaysia (10 per cent); rest of the shares owned by AAI.
  - 74 per cent private shareholding in CSI Airport (Mumbai) - owned majorly by GVK (50.5 per cent), Bid Services Division (Mauritius) Ltd. (13.5 per cent), ACSA Global (10 per cent); rest of the shares owned by AAI.
  - 74 per cent private shareholding in RGI Airport (Hyderabad) - owned majorly by GMR (63 per cent), Malaysia Airports Holdings Berhad (11 per cent); rest of the shares owned by Government of India (13 per cent) and Government of Andhra Pradesh (13 per cent).
  - 74 per cent shareholding in Kempagowda International Airport (Bengaluru) – owned majorly by Siemens Project Ventures, Germany (40 per cent), Unique (Flughafen Zurich AG) Zurich Airport, Switzerland (17 per cent), L&T, India (17 per cent); rest of the shares owned by AAI (13 per cent) and KSIIDC, which is an agency owned by the state of Karnataka, India (13 per cent).
  - In March 2017, by selling off 2 offshore bonds, GMR plans to raise US$250-300 million for refinancing their debt. In June 2017, GMR announced plans to refinance loans and divest assets in road and power sectors to cut debt so as to invest up to Rs. 7,400 (US$ 1.15 billion) crore to expand Delhi and Hyderabad airports. 

Source: Notes: KSIIDC – Karnataka State Industrial and Infrastructure Development Corporation Ltd.
PRIVATE SECTOR INVESTMENT IN AIRPORTS RISING… (2/2)

Participation in international airport projects:

- Delhi (Modernisation, Terminal 3)
- Mumbai (Modernisation)
- Hyderabad
- Bengaluru

Terminal 3 construction in Delhi completed in 2010

Terminal 3 - Total cost US$ 2.7 billion (including Terminal 3 and 1-D)

PPP format likely to continue

15 greenfield projects with private sector participation has been approved in May 2015

In May 2016, US$ 2.23 billion of investments were approved by Airports Authority of India (AAI) for upgrading Indian airports, over a period of four years

- Bijapur Airport
- Shimoga Airport
- Hassan Airport
- Gulbarga Airport
- Mopa Airport, Navi Mumbai Airport, Shirdi and Sindhudurg Airports, Kannur and Aranmula Airports, Durgapur Airport, Dabra Airport, Pakyong Airport, Karaikal Airport and Kushinagar Airport
SUCCESSFUL PPP AIRPORTS IN INDIA

- Presently India has 5 PPP airports each at Mumbai, Delhi, Cochin, Hyderabad and Bengaluru, which together handle over 55 per cent of country's air traffic.
- Government of India has approved 15 greenfield PPP projects which are expected to increase the air traffic in India. These projects would be setup in Goa, Navi Mumbai, Maharashtra, Bijapur, Gulbarga, Karnataka, Kerala, West Bengal, Madhya Pradesh, Sikkim, Puducherry and Uttar Pradesh.

<table>
<thead>
<tr>
<th>Name of airport</th>
<th>Operator</th>
<th>Type of project/PPP structure</th>
<th>Revenue sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chhatrapati Shivaji International Airport</td>
<td>Mumbai International Airport Ltd (MIAL)</td>
<td>Brownfield/BOOT</td>
<td>38.7 per cent of gross revenue to be shared with AAI</td>
</tr>
<tr>
<td>Indira Gandhi International Airport</td>
<td>Delhi International Airport Ltd (DIAL)</td>
<td>Brownfield/BOOT</td>
<td>45.9 per cent of gross revenue to be shared with AAI</td>
</tr>
<tr>
<td>Rajiv Gandhi International Airport</td>
<td>GMR Hyderabad International Airport Ltd (GHIAL)</td>
<td>Greenfield/BOOT</td>
<td>Concession fees - 4 per cent of gross revenue to be shared with AAI</td>
</tr>
<tr>
<td>Bengaluru International Airport</td>
<td>Bengaluru International Airport Ltd (BIAL)</td>
<td>Greenfield/BOOT</td>
<td>Concession fees – 4 per cent of gross revenue to be shared with AAI</td>
</tr>
<tr>
<td>Cochin International Airport</td>
<td>Cochin International Airport Ltd (CIAL)</td>
<td>Greenfield/BOO</td>
<td>Payment of dividend to the Government towards their 26 per cent of equity capital</td>
</tr>
</tbody>
</table>

Notes: BOOT - Build Own Operate Transfer; BOO - Build Own Operate
Source: Association of Private Airport Operators
FOREIGN PLAYERS ARE SHOWING INCREASING INTEREST IN THE SECTOR

<table>
<thead>
<tr>
<th>Major foreign players</th>
<th>Airport</th>
<th>Stake (%)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airports Company South Africa Global</td>
<td>Mumbai International Airport Pvt Ltd</td>
<td>10</td>
<td>Operates and owns 9 airports in South Africa</td>
</tr>
<tr>
<td>Malaysia Airports Holdings Berhad</td>
<td>Delhi International Airport Pvt Ltd</td>
<td>10</td>
<td>Operates and manages 5 international gateways, 16 domestic airports, to 18 short take-off and landing ports (Short Take-off and Landing ports) that serves the rural and remote areas in Malaysia</td>
</tr>
<tr>
<td></td>
<td>Hyderabad International Airport Pvt Ltd</td>
<td>11</td>
<td>Global airport operator that offers airport management services including terminal and traffic management, baggage and cargo handling and aviation ground handling</td>
</tr>
<tr>
<td>Frankfurt Airport Services Worldwide</td>
<td>Delhi International Airport Pvt Ltd</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>AirAsia</td>
<td>Joint venture with Tata sons and Arun Bhatia</td>
<td>49</td>
<td>AirAsia is a Malaysian low-cost carrier. It has formed a JV AirAsia (India) Pvt Ltd with Tata Sons (30 per cent stake) and Arun Bhatia via Telestra Tradeplace (21 per cent stake) in March 2013. Tata Sons planning to raise its stake to 41.06 per cent as on August 14, 2015</td>
</tr>
<tr>
<td>Jet Airways</td>
<td>Aeromexico</td>
<td>Signed a MoU</td>
<td>Partnered with Aeromexico for codeshare flights and frequent flyers programme</td>
</tr>
</tbody>
</table>
OPPORTUNITIES
### OPPORTUNITIES

<table>
<thead>
<tr>
<th>Policy support and demand growth unlocking large investment potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>- The Indian Aviation sector likely to see investments totalling US$ 12.1 billion during the 12th Five Year Plan</td>
</tr>
<tr>
<td>- Of the total investment, US$ 9.3 billion is expected to come from the private sector</td>
</tr>
<tr>
<td>- Success of PPP formats will raise investment in existing and greenfield airports</td>
</tr>
<tr>
<td>- Private sector participation in 6 existing airports operated by AAI is likely to increase investment opportunities for airport sector</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Huge potential to develop India as an MRO hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>- The Indian Aviation Industry aims to boost MRO business in India, which is worth US 500 million as of FY2016 and is estimated to grow over US1.5 billion by 2020</td>
</tr>
<tr>
<td>- Indian airline companies spend over 13–15 per cent of their revenues on maintenance, which is the 2nd highest cost component after fuel</td>
</tr>
<tr>
<td>- Inauguration of MRO facility at Hyderabad in May 29, 2015 by Air India Engineering Services Limited (AIESL) which is a 100 per cent owned subsidiary of Air India</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Leverage on non-aeronautical revenues, improved technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Airport developers can now draw on wider revenue opportunities such as retail, advertising and vehicle parking</td>
</tr>
<tr>
<td>- Future operators will benefit from greater operational efficiency due to satellite based navigation systems like 'Project Gagan' which is in development phase</td>
</tr>
</tbody>
</table>

**Notes:** ‘Project Gagan’ is directed towards transitioning from a ground-based navigation system to a satellite-based one. AAI and ISRO are jointly working on this. A Space Based Augmentation System (SABS) will be operational by 2013. MRO – Maintenance, Repair and Overhaul
IGI AIRPORT, DELHI - A COMPELLING SUCCESS STORY

- Awarded at the Skytrax World Airport Awards 2015 for the “Best Airport in Central Asia region” and for the “Best Airport Staff”. Also, they were felicitated with the prestigious Golden Peacock National Quality Award’ 2015 for their continuous efforts in building a culture across IGI Airport.
- IGI airport ranked 1st at the ACI Annual Service Quality Awards in 2016, across the globe (category: handling 25-40 million passengers), up from 2nd position in 2012.
- Delhi International Airport Ltd became the 1st in the world to receive the ISO 22301:2012 certification for its robust business continuity management system.
- Delhi International Airport Ltd is also India’s 1st airport to cross 5 crore passenger mark, in 2016.
- In 2017, Delhi Airport was adjudged as the "Best Airport in India and Central Asia" by Skytrax at the World Airport Awards.
- Phase 1 of modernisation of IGI International Airport (at a cost of INR86 billion) involved renovation of terminals 1A, 1B, 1C and Terminal 2. It also included construction of a new domestic terminal along with an integrated passenger terminal (Terminal 3).

Facts and features:
- Passenger Traffic: 57.7 million (FY17)
- Aircraft movement: 0.39 million (FY17)
- Cargo: 0.85 million tonnes (FY17)
- Terminal 3
- Retail space: 0.3 million square feet
- Apron area: 6.7 million square feet
- Multi level car park: 4,300 cars/day

<table>
<thead>
<tr>
<th>Phase I</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger handling capacity per annum</td>
<td>34 million</td>
</tr>
<tr>
<td>Area (acres)</td>
<td>5,106</td>
</tr>
<tr>
<td>Operational status</td>
<td>Ongoing 20-year project</td>
</tr>
<tr>
<td></td>
<td>Completed on Mar-2010</td>
</tr>
</tbody>
</table>

Notes: ACI – Airports Council International, mn - Million
Source: Delhi International Airport Ltd, Association of Private Airport Operators, Airports Authority of India
CSI INTERNATIONAL AIRPORT, MUMBAI - HARNESSING THE POWER OF PPP

- During the World Travel Awards, 2015, CSI International Airport, Mumbai’s GVK Lounge at Terminal 2 was felicitated with “Asia’s Leading Airport Lounge” Award. Also, the Architizer A+ Award for the “Best Architectural Structures in the World” was bagged by CSI International Airport in the Transportation-Airports category, 2015.

- In 2017, CSIA also secured top award for ‘Best Airport Staff Service’ in India and Central Asia at the World Airport Awards organised by Skytrax.

- In FY17, CSIA became the world’s busiest airport amongst single runway facilities with 45.2 million passengers flying in and out in this fiscal and by handling 837 flights per day or 1 in 65 seconds on an average.

- In FY17, CSI handled 45.2 million of passenger traffic and 0.78 million tonnes of cargo movement.

- Modernisation of the Mumbai International Airport will entail investments worth US$ 1.3 billion over a period of 20 years

- Government of India to provide US$ 1.1 billion

- Parts of the project completed till now:
  - Phase I (2008): New airport lounges, retail outlets, duty-free shops, temporary cargo facilities and multilevel car parks
  - Phase II (2010): Involved construction of a new terminal at Sahar, a parallel runway and new cargo facilities

Notes: ACI – Airports Council International
Source: Airports Authority of India, Mumbai International Airport Ltd.
## INDUSTRY ORGANISATIONS

<table>
<thead>
<tr>
<th>Airports Authority of India (AAI)</th>
<th>Directorate General of Civil Aviation (DGCA)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Address:</strong> Rajiv Gandhi Bhawan, Safdarjung Airport, New Delhi –110 003</td>
<td></td>
</tr>
<tr>
<td><strong>Phone:</strong> 91 11 24632950</td>
<td></td>
</tr>
<tr>
<td><strong>Address:</strong> Aurbindo Marg, Opp. Safdarjung Airport, New Delhi –110 003</td>
<td></td>
</tr>
<tr>
<td><strong>Phone:</strong> 91 11 24622495</td>
<td></td>
</tr>
<tr>
<td><strong>Fax:</strong> 91 11 24629221</td>
<td></td>
</tr>
<tr>
<td><strong>E-mail:</strong> <a href="mailto:dri@dgca.nic.in">dri@dgca.nic.in</a>, <a href="mailto:dfa@dgca.nic.in">dfa@dgca.nic.in</a></td>
<td></td>
</tr>
</tbody>
</table>
USEFUL INFORMATION
GLOSSARY

- AAI: Airports Authority of India
- ACI: Airport Council International
- CAGR: Compound Annual Growth Rate
- FDI: Foreign Direct Investment
- FY: Indian Financial Year (April to March)
- So FY10 implies April 2009 to March 2010
- GOI: Government of India
- INR: Indian Rupee
- MRO: Maintenance, Repair and Overhaul
- PPP: It could denote two things (mentioned in the presentation accordingly) –
  - Purchasing Power Parity (used in calculating per-capita GDP – slide 12, GROWTH DRIVERS)
  - Public Private Partnership (a type of joint venture between the public and private sectors)
## Exchange Rates

### Exchange Rates (Fiscal Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>INR Equivalent of one US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004–05</td>
<td>44.81</td>
</tr>
<tr>
<td>2005–06</td>
<td>44.14</td>
</tr>
<tr>
<td>2006–07</td>
<td>45.14</td>
</tr>
<tr>
<td>2007–08</td>
<td>40.27</td>
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<tr>
<td>2008–09</td>
<td>46.14</td>
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<tr>
<td>2009–10</td>
<td>47.42</td>
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<tr>
<td>2010–11</td>
<td>45.62</td>
</tr>
<tr>
<td>2011–12</td>
<td>46.88</td>
</tr>
<tr>
<td>2012–13</td>
<td>54.31</td>
</tr>
<tr>
<td>2013–14</td>
<td>60.28</td>
</tr>
<tr>
<td>2014–15</td>
<td>61.06</td>
</tr>
<tr>
<td>2015–16</td>
<td>65.46</td>
</tr>
<tr>
<td>2016–17E</td>
<td>67.23</td>
</tr>
</tbody>
</table>

### Exchange Rates (Calendar Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>INR Equivalent of one US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>43.98</td>
</tr>
<tr>
<td>2006</td>
<td>45.18</td>
</tr>
<tr>
<td>2007</td>
<td>41.34</td>
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<tr>
<td>2008</td>
<td>43.62</td>
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<tr>
<td>2009</td>
<td>48.42</td>
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<tr>
<td>2010</td>
<td>45.72</td>
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<tr>
<td>2011</td>
<td>46.85</td>
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<tr>
<td>2012</td>
<td>53.46</td>
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<tr>
<td>2013</td>
<td>58.44</td>
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<tr>
<td>2014</td>
<td>61.03</td>
</tr>
<tr>
<td>2015</td>
<td>64.15</td>
</tr>
<tr>
<td>2016E</td>
<td>67.22</td>
</tr>
</tbody>
</table>

*Source: Reserve bank of India, Average for the year*
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