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EXECUTIVE SUMMARY … (1/2)

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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 & tourism to contribute USD423.7 billion to GDP by 2026

The travel & tourism industry is forecast to grow at a CAGR of 6.66 per cent to USD423.7 billion in 2027 from USD208.5 billion in 2016

Business & leisure travel to boost growth

Spending on business travel is estimated to increase to USD39.88 billion in 2026 from USD19.9 billion in 2016, while on leisure travel is forecast to rise to USD203.5 billion in 2026 from USD96.20 billion in 2016

Source: World Travel and Tourism Council, Airport Authority of India, TechSci Research
For updated information, please visit www.ibef.org
EXECUTIVE SUMMARY … (2/2)

By 2030, India’s working population to be thrice the total population in the US

Working population (aged between 15 & 64 years) is estimated to increase from 860 million in 2016 to 900 million by 2030, almost 3 times the US population

By 2016, India’s middle income class to be triple the total population in Germany

India’s middle income population is expected to increase from 160 million (over 50 per cent of the total population in the US) in 2011 to 267 million by 2016 equivalent to over 3 times Germany’s population

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Robust demand
- Rising working group & 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 & business travel
- Freight traffic also likely to go up as trade with the rest of the world increases

Opportunities in MRO
- 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 USD1.5 billion from USD0.5 billion currently

Increasing investments
- Investments totaling USD12.1 billion in the airport sector are likely to be made during the 12th Five Year Plan (2012-17); of these, private investments are expected to total USD9.3 billion
- Growing private sector participation through the Public - Private Partnership (PPP) route

Policy support
- 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 & domestic scheduled passenger airline.

Source: Ministry of Civil Aviation, MRO India, TechSci Research
Notes: FDI – Foreign Direct Investment, MRO – Maintenance, Repair and Overhaul; FY – Indian Financial Year (April – March)
India is the 9th largest civil aviation market in the world. In FY17, the civil aviation sector witnessed a growth rate of around 20-25 per cent.

As of FY17\(^1\), airports in India witnessed a domestic passenger traffic of about 170.78 million people.

Investments worth USD 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\(^1\) largest by 2020 and expected to be the largest by 2030.

| Scheduled airlines: distance flown (mn km) | 199 |
| Non-scheduled airlines in operation | 39 |
| Number of aircrafts | 225 |
| Cargo Handled | 703,000 |
| Number of airports | 50 |
| | 1,071.10 (2016) |
| | 121 (FY16) |
| | 1,657 (FY16) |
| | 724,000 (FY16) |
| | 125 (FY16) |

Source: Airports Authority of India, Ministry of Statistics and Programme Implementation, Ministry of Civil Aviation, TechSci Research
Notes: \(^1\) India ranks after the US and China
FY – Indian Financial Year (April – March), mn km – Million Kilometers
\(^{(1)}\) April-January

For updated information, please visit www.ibef.org
**AIRPORTS**

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

**Airports and airstrips in India (464)**
- **AAI managed (125)**
- **Non-AAI airports & airstrips (339)**

**Non-operational (9)**
- Operational (90)
- Civil enclaves (26)
- Domestic airports (66)
- Customs airports (7)
- International (17)

**Activity in AAI airports - shares (%) – FY16**
- **Aircraft Movement**
  - 20.93% International
  - 79.07% Domestic
- **Passenger Traffic**
  - 24.47% International
  - 75.53% Domestic
- **Freight Traffic**
  - 61.32% International
  - 38.68% Domestic

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

**Source:** Airports Authority of India, TechSci Research

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

For updated information, please visit [www.ibef.org](http://www.ibef.org)
SIX MAJOR AIRLINES OPERATE IN THE COUNTRY

GoAir
Market share: 8.9%
Passenger load traffic: 91.4%

Jet Airways
Market share: 15.4%
Passenger load traffic: 79.8%

IndiGo
Market share: 39.9%
Passenger load traffic: 81.6%

Spicejet
Market share: 13.2%
Passenger load traffic: 91.4%

Jetlite
Market share: 2.5%
Passenger load traffic: 79.2%

Air India
Market share: 13%
Passenger load traffic: 74.6%

Note: Market Share as on March’17 and Load Data for the month of March’17 as published by Directorate General of Civil Aviation

For updated information, please visit www.ibef.org
THE SIX MAJOR AIRPORTS IN THE COUNTRY

Delhi
Passenger traffic handled in FY16: 48 million; FY17\(^1\): 52.5 million

Mumbai
Passenger traffic handled in; FY16: 41.7 million; FY17\(^1\): 41.4 million

Bengaluru
Passenger traffic handled in FY16: 19 million; FY17\(^1\): 21.1 million

Chennai
Passenger traffic handled in FY16: 15.2 million; FY17\(^1\): 16.7 million

Kolkata
Passenger traffic handled in FY16: 12.4 million; FY17\(^1\): 14.35 million

Hyderabad
Passenger traffic handled in FY16: 12.4 million FY17\(^1\): 13.79 million

Source: AAI, TechSci Research
Note: FY – Indian Financial Year (April – March)
\(^1\)Data for April 2016 – February 2017

For updated information, please visit www.ibef.org
The total passenger traffic stood at a 220.12 million in FY17\(^1\), which was recorded at 190.1 million in FY15 in India.

Growth in passenger traffic has been strong since the new millennium, especially with rising incomes & low-cost aviation; during FY06-17\(^1\), passenger traffic grew at a CAGR of 10.51 per cent in the country.

*Source: Association of Private Airport Operator, Airports Authority of India, TechSci Research,
Notes: CAGR – Compound Annual Growth Rate,
FY – Indian Financial Year (April – March)
\(^{(1)}\)April-January
Domestic passenger traffic expanded at a CAGR of 11.46 per cent over FY06–17.1

According to Directorate General of Civil Aviation, domestic passenger traffic witnessed growth at a rate of 22 per cent, till February 2017, in comparison 21.24 per cent in FY16.

International passenger traffic registered growth at a CAGR of 8.33 per cent over FY06-17.1.

During February 2017, domestic airlines carried over 8.23 million passengers, showing a growth of more than 23 per cent compared to the same period last year.

During FY171, domestic passenger traffic increased by 22 per cent in comparison with growth rate of 21.24 per cent in FY16.

During FY16, international passenger traffic increased by 7.72 per cent.

Source: Airports Authority of India, Ministry of Civil Aviation, TechSci Research
Notes: YoY – Year on Year, FY – Indian Financial Year (April – March)
1Data for April 2016 – February 2017

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 6.8 per cent over FY06-16.

* During FY06-16, domestic freight traffic increased at a CAGR of 8 per cent, while international freight traffic grew at a CAGR of 6.1 per cent during the same period.

* In FY16, domestic freight traffic stood at 1045.92 million tonnes, while international freight traffic was at 1658.35 million tonnes.

* During FY16, domestic freight traffic increased at 6.08 per cent while international freight traffic increased at 7.55 per cent in comparison with FY15.

* 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 & 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, TechSci Research
Freight traffic on airports in India is expected to cross 11.4 million tonnes by 2032.

Growth in import & 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.

Source: Airports Authority of India, TechSci Research
Note: FY – Indian Financial Year (April – March)
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 3.97 per cent, as compared to FY16.

In FY17, total aircraft movement stood at 2.04 million.

In May 2017, Air India has decided to launch flights to three new destinations in the U.S., Stockholm, Nairobi & Tel Aviv this year.
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.

In FY17, domestic aircraft movement increased at a YoY of 1.43 per cent, while international aircraft movement declined at a YoY of 0.68 per cent, in comparison to FY16.

During FY17, the total number of domestic aircraft movement increased to 1.86 million, as compared to FY16.

Source: Association of Private Airport Operators, TechSci Research
Notes: YoY – Year on Year; FY – Indian Financial Year (April – March)
CAGR – Compound Annual Growth Rate
\(^1\)Data for April 2016 – February 2017
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AAI DOMINATES, BUT PRIVATE SECTOR PARTICIPATION IS RISING

* Until 2013, AAI was the only major player involved in developing & upgrading airports in India
* Post liberalisation, private sector participation in the sector has been increasing
* Private sector investment is expected to increase to USD9.3 billion during the 12th Five Year Plan from USD5.5 billion in the previous plan

- Development of Hyderabad International Airport; modernisation of Delhi International Airport
- Modernisation of Mumbai International Airport
- Development of Bengaluru International Airport
- Development of Bengaluru International Airport
- Development of Bengaluru International Airport
- Development of Simoga and Gulbarga airports in Karnataka

Note: AAI – Airports Authority of India
# Notable Trends in the Airports Sector

## Rising Private Participation & Investments
- Currently, 5 international airports have been completed successfully under PPP mode.
- Investment made by private sector during the 12th Five Year Plan (2012–17) is expected to increase by 69.1 per cent to USD 9.3 billion over that during the 11th Five Year Plan.
- 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.

## Greater Use of Non-Scheduled Airlines
- Rising business activity leading to higher demand for non-scheduled airlines.
- As on June 2016, there are 121 operators (NSOP).

## User Development Fees
- Increasing use of development fees by airport developers & operators.
- Airport Development Fee: Delhi, Mumbai airports to fund expansion.
- User Development Fee: Hyderabad, Bengaluru airports for maintenance.

## Focus on Non-Aeronautical Revenue
- Indian airports are emulating the SEZ-aerotropolis model to enhance revenues; focus on revenues from retail, advertising, vehicle parking, etc.
- 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.
- Absence of complementary meals in low-cost airlines have boosted the F&B retail segment at airports.

*Source: DGCA*

Note: FY – Indian Financial Year (April – March)
NSOP – Non Schedule Operators Permit

For updated information, please visit [www.ibef.org](http://www.ibef.org)
## Competitive Rivalry
- 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 & is highly price sensitive.
- Competition might intensify further in LCC segment with Air Asia India being granted DGCA’s operator license.

## Threat of New Entrants
- 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 & Srinagar from Delhi.

## Substitute Products
- Threat remains low in this sector also as no other means of transport is as swift & convenient as airlines
- It saves time

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

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

Source: Central Asia-Pacific Aviation, TechSci Research
Note: ¹ Notes w.r.t airlines
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STRATEGIES ADOPTED
AIRPORTS

STRATEGIES ADOPTED

**Expansion**
- Capacity will also increase with new terminals coming up in Mumbai, Bengaluru, Chennai & Kolkata
- Indian carriers to double their fleet capacity by 2020 to around 800 aircrafts
- To fund 4 Boeing 787 aircrafts, AI is planning to raise loans worth USD470 million in the period July & October 2017.

**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 & customer meals
- 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 4 hours (shorter international routes)
- Chennai, with its strategic location in South India has a strong potential to become a hub, with connecting flights to Gulf & across South East Asia.
- Indigo, one of the largest airlines in India, has announced Sharjah as its 6th international destination. From March 2017, the airline plans to operate its daily non-stop flights between Kozhikode & Sharjah.

**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.
- In June 2017, the government announced 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 & Kadapa airports.
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GROWTH DRIVERS
AIRPORTS

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
Rising per capita income and growing working population

- The GDP based on Purchasing Power Parity grew at a CAGR of 7.45 per cent during 2006-2016, reaching USD 6620 in 2016.
- The population belonging to the working age group (15–64 years), at 65.7 per cent of the total population currently, is expected to grow; this indicates the employee base and the frequency of business travel are expected to increase.

Source: IMF, World Travel and Tourism Council, TechSci Research
Note: E - IMF estimates
Rising domestic and foreign tourists

- Improving tourism infrastructure
- Successful ad campaigns abroad
- The share of travel & tourism in India’s GDP is likely to depict YoY growth of over 15 per cent per cent in 2017E; and is expected to grow at a CAGR of 7.2 per cent per annum between 2017E-2027

Growing travel & tourism spending

- India is one of the fastest growing economies
- Overall, Leisure travel & 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.
- Leisure travel spending grew to USD181.65 billion in 2017E from USD96.20 billion in 2016.

### Travel and tourism spending (USD billion)

<table>
<thead>
<tr>
<th>Year</th>
<th>Business Travel and Tourism Spending (in USD Bn)</th>
<th>Leisure Travel &amp; Tourism Spending (in USD Bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>26.1</td>
<td>42.1</td>
</tr>
<tr>
<td>2008</td>
<td>24.4</td>
<td>46.6</td>
</tr>
<tr>
<td>2009</td>
<td>16.8</td>
<td>48.7</td>
</tr>
<tr>
<td>2010</td>
<td>22.3</td>
<td>60.9</td>
</tr>
<tr>
<td>2011</td>
<td>25.5</td>
<td>68.3</td>
</tr>
<tr>
<td>2012</td>
<td>26.4</td>
<td>77.8</td>
</tr>
<tr>
<td>2013</td>
<td>20.8</td>
<td>91.6</td>
</tr>
<tr>
<td>2014</td>
<td>17.8</td>
<td>96.01</td>
</tr>
<tr>
<td>2015</td>
<td>19.1</td>
<td>96.2</td>
</tr>
<tr>
<td>2016</td>
<td>19.1</td>
<td>103.6</td>
</tr>
<tr>
<td>2017E</td>
<td>18.65</td>
<td>181.65</td>
</tr>
</tbody>
</table>

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

Growing trade benefits of freight movement

- Over FY09-16,
  - India’s exports expanded at a CAGR of 5.12 per cent to USD276.28 billion in FY17.
  - Imports registered a CAGR of 2.99 per cent which reached to USD384.31 billion in FY16
- Growing trade augurs well for airports as they handle about 30 per cent of India’s total trade (by value)

Rising exports and imports (USD billion)

Source: Ministry of Commerce, TechSci Research
Notes: CAGR – Compound Annual Growth Rate, FY – Indian Financial Year (April – March)
## AIRPORTS

### POLICY SUPPORT AIDING GROWTH IN THE AIRPORTS SECTOR … (1/2)

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater focus on infrastructure</td>
<td>• GOI envisions airport infrastructure investment of USD11.4 billion under the 12th Five Year Plan (2012-17)</td>
</tr>
<tr>
<td></td>
<td>• The Indian government is planning to invest USD1.83 billion for development of airport infrastructure along with aviation navigation services by 2026.</td>
</tr>
<tr>
<td></td>
<td>• With the opening of the airport sector to private participation, 6 airports across major cities are being developed under the PPP model</td>
</tr>
<tr>
<td></td>
<td>• Currently 60 per cent of airport traffic is handled under the PPP model, while the remaining 40 per cent is managed by the AAI</td>
</tr>
<tr>
<td></td>
<td>• Increased traffic rights under bilateral agreements with foreign countries</td>
</tr>
<tr>
<td></td>
<td>• India has signed its 1st open skies agreement with Greece</td>
</tr>
<tr>
<td></td>
<td>• In May 2017, India &amp; Spain signed an MoU for cooperation in civil aviation industry. The MoU would spur greater trade, investment, tourism &amp; cultural exchanges between both the countries.</td>
</tr>
<tr>
<td></td>
<td>• 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.</td>
</tr>
<tr>
<td>Liberalisation, Open Sky Policy</td>
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<tr>
<td></td>
<td>• 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.</td>
</tr>
<tr>
<td></td>
<td>• 100 per cent FDI is allowed under automatic route in scheduled air transport service, regional air transport service &amp; domestic scheduled passenger airline. FDI over 49 per cent would require government approval.</td>
</tr>
<tr>
<td></td>
<td>• Approval of 49 per cent FDI in aviation for foreign carriers.</td>
</tr>
</tbody>
</table>

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.
Taxes and duties

- 100 per cent tax exemption for airport projects for a period of 10 years
- Indian aircraft Manufacture, Repair & Overhaul (MRO) service providers are exempted completely from customs & countervailing duties

Budgetary support

- In the Union Budget for FY17, Government of India, for the purpose of equity infusion has earmarked USD255.86 million for Air India Limited.
- Also, a budget of about USD14.98 million has been allocated to Airports Authority of India, of which USD4.29 million has been attributed towards Pakyong, Sikkim project.
- The government has planned to allocate a sum of USD11.80 million to Directorate General of Civil Aviation to implement various schemes.
- The government has also supported the Bureau of Civil Aviation Security with USD9.71 million to meet their expenditure.

Source: Ministry of Civil Aviation
Notes: AAI – Airports Authority of India, DGCA – Directorate General of Civil Aviation, FY – Indian Financial Year (April – March)
AAI LEADS THE WAY IN AIRPORTS INFRASTRUCTURE INVESTMENT

**Metro airports**
- The AAI aims to bring around 250 airports under operation across the country by 2020
- The AAI has developed & upgraded over 23 metro airports in the last 5 years

**Non-metro airports**
- The AAI plans to spend USD1.3 billion on non-metro projects over the 5 years (2013–17); mainly focusing on the modernisation & upgradation of airports; New airports at Itanagar, Kohima & Gangtok are also planned
- The Government of Andhra Pradesh is to develop greenfield airports in 6 cities- Nizamabad, Nellore, Kurnool, Ramagundam, Tadepalligudem & Kothagudem under the PPP model
- Upfront subsidy has been proposed through which non-metro airports would be funded by imposing 2 per cent levy on both domestic & international airfares
- About 22 airports to get connected under regional connectivity scheme of AAI

**Northeast India**
- Over 30 airport development projects are under progress across various regions in Northeast India
- AAI plans to develop over 20 airports in tier II & III cities in next 5 years
- The AAI plans to develop Guwahati as an inter-regional hub & Agartala, Imphal & Dibrugarh as intra-regional hubs

Source: TechSci Research
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 5 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) & Government of Andhra Pradesh (13 per cent)
- 74 per cent shareholding in Kempegowda 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.

Source: TechSci Research

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

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

Terminal 3 construction in Delhi completed in 2010
Terminal 3 - Total cost
USD2.7 billion (including Terminal 3 and 1-D)

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

PPP format likely to continue

In May 2016, USD2.23 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, Shiridi and Sindhudurg Airports, Kannur and Aranmula Airports, Durgapur Airport, Dabra Airport, Pakyong Airport, Karaikal Airport and Kushinagar Airport

Source: TechSci Research

For updated information, please visit www.ibef.org
Presently India has 5 PPP airports each at Mumbai, Delhi, Cochin, Hyderabad & 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 & 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>
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 &amp; 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 &amp; manages 5 international gateways, 16 domestic airports, to 18 short take-off &amp; landing ports (Short Take-off &amp; Landing ports) that serves the rural &amp; remote areas in Malaysia</td>
</tr>
<tr>
<td>Frankie Airport Services Worldwide</td>
<td>Delhi International Airport Pvt Ltd</td>
<td>10</td>
<td>Global airport operator that offers airport management services including terminal &amp; traffic management, baggage &amp; cargo handling &amp; aviation ground handling</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) &amp; 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>
AIRPORTS

OPPORTUNITIES
## AIRPORTS

### 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 USD12.1 billion during the 12th Five Year Plan</td>
</tr>
<tr>
<td>Of the total investment, USD9.3 billion is expected to come from the private sector</td>
</tr>
<tr>
<td>Success of PPP formats will raise investment in existing &amp; 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 US$1.5 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>
</tbody>
</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 &amp; 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” & 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.

**Facts and features**

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

**Phase I**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger handling capacity per annum</td>
<td>34 million</td>
</tr>
<tr>
<td>Area (acres)</td>
<td>1,907</td>
</tr>
<tr>
<td>Operational status</td>
<td>Completed on Mar-2010</td>
</tr>
</tbody>
</table>

**Final**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 million (by 2020)</td>
<td>(60 million as on October 2013)</td>
</tr>
<tr>
<td>5,106</td>
<td>Ongoing 20-year project</td>
</tr>
</tbody>
</table>

Phase 1 of modernisation of IGI International Airport (at a cost of INR86 billion) involved renovation of terminals 1A, 1B, 1C & Terminal 2. It also included construction of a new domestic terminal along with an integrated passenger terminal (Terminal 3).

*Source: Delhi International Airport Ltd, Association of Private Airport Operators, Airports Authority of India, TechSci Research; Note: ACI – Airports Council International, mn - Million*
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 has been 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

Plans to increase the handling capacity at the airport from 36 to 48 flights/hour & to increase the passenger capacity to 40 million annually

Facts and features

In FY17, CSI handled –

- Passenger traffic: 45.15 million
- Cargo movement: 0.78 million tonnes

- Modernisation of the Mumbai International Airport will entail investments worth USD1.3 billion over a period of 20 years
  - Government of India to provide USD1.1 billion
- Parts of the project completed till now:
  - Phase I (2008): New airport lounges, retail outlets, duty-free shops, temporary cargo facilities & multilevel car parks
  - Phase II (2010): Involved construction of a new terminal at Sahar, a parallel runway & new cargo facilities

Source: Airports Authority of India, Mumbai International Airport Ltd, TechSci Research
Note: ACI – Airports Council International
AIRPORTS

USEFUL INFORMATION
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**Directorate General of Civil Aviation (DGCA)**
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Phone: 91 11 24622495
Fax: 91 11 24629221
E-mail: dri@dgca nic.in, dfa@dgca nic.in
**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 (Fiscal Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>INR equivalent of one USD</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>
</tr>
<tr>
<td>2008–09</td>
<td>46.14</td>
</tr>
<tr>
<td>2009–10</td>
<td>47.42</td>
</tr>
<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>2016–17 (E)</td>
<td>67.23</td>
</tr>
</tbody>
</table>

### Exchange rates (Calendar Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>INR equivalent of one USD</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>
</tr>
<tr>
<td>2008</td>
<td>43.62</td>
</tr>
<tr>
<td>2009</td>
<td>48.42</td>
</tr>
<tr>
<td>2010</td>
<td>45.72</td>
</tr>
<tr>
<td>2011</td>
<td>46.85</td>
</tr>
<tr>
<td>2012</td>
<td>53.46</td>
</tr>
<tr>
<td>2013</td>
<td>58.44</td>
</tr>
<tr>
<td>2014</td>
<td>61.03</td>
</tr>
<tr>
<td>2015</td>
<td>64.15</td>
</tr>
<tr>
<td>2016 (Expected)</td>
<td>67.22</td>
</tr>
</tbody>
</table>

Source: Reserve bank of India, Average for the year

For updated information, please visit [www.ibef.org](http://www.ibef.org)
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