



Creating World-Class Airports Worldwide

THE CHANGI EXPERIENCE

PROSPECTIVE VISION FOR THE NEXT 10 YEARS OF SINGAPORE AIRPORT



International Conference

*Air Transport, Airports, Air Navigation
and Globalisation of the Economics*

May 26, 27 and 28 - 2008

By

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Presentation Outline

The Changi Experience

Key Success Factors

The Next 10 Years



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TRAFFIC DEVELOPMENT AT CHANGI



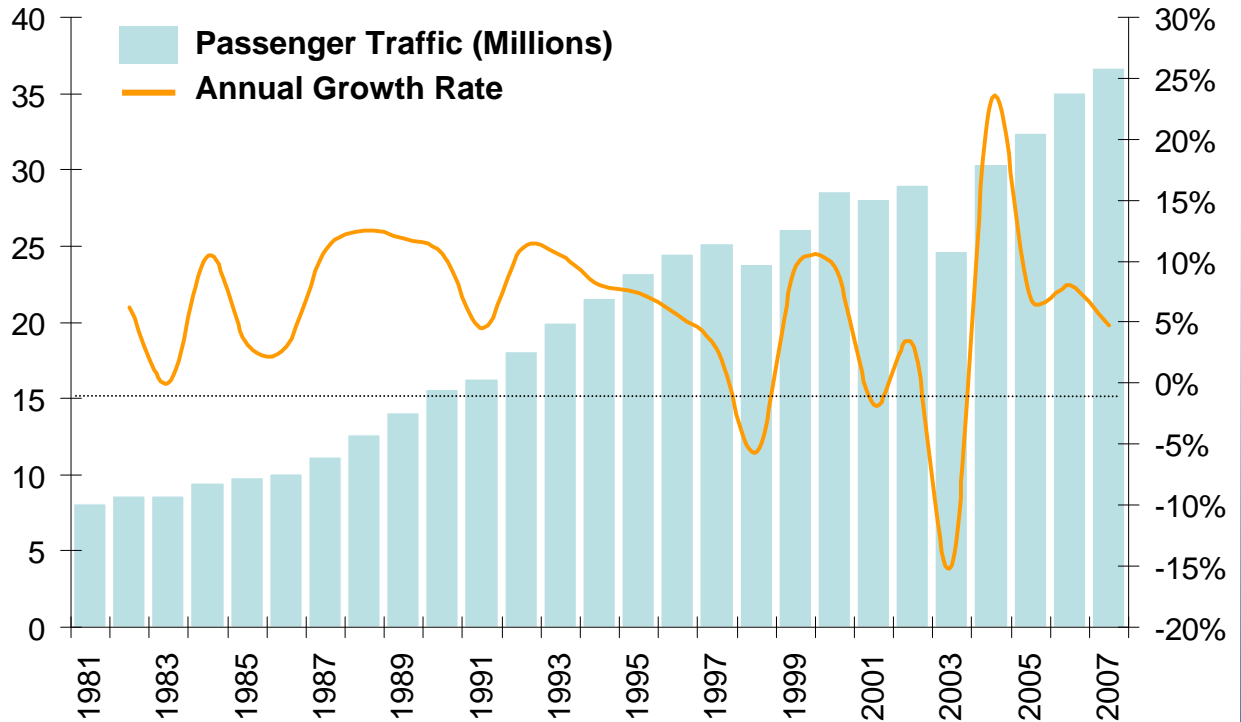
- 37 million pax in 2007
- 7th busiest airport in the world in terms of international traffic in 2006



- 1.9 million tonnes cargo in 2007
- 10th busiest cargo airport in the world in 2006



- 3 terminals and 2 parallel runways; 70 million pax per annum capacity



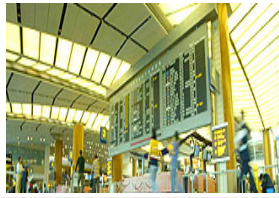
One of the world's leading aviation hub

- served by 83 scheduled airlines;
- connected to 183 cities in 57 countries;
- through 4,206 weekly flights

THE CHANGI EXPERIENCE

1

Premier Gateway and Asian Hub



- 37 million pax in 2007 (40% transfer)
- 1.9 million tonnes of cargo in 2007 (40% transshipment)
- 183 cities served
- 83 airlines and 4,206 weekly flights

2

Globally Acclaimed Airport



- Won more than 260 awards since 1981
- Awards cover a wide range from best airport to best airport retail
- IFALPA deficiency-free rating for 26 years

3

Key National Economic Driver



- 9% of Singapore's GDP
- 14,000 airline jobs
- 66,000 direct jobs inside and outside the airport
- 33,600 indirect jobs in the supply chain

4

Strong and Sustainable Financial Performance



- S\$1,099M in revenues
- 60% from non-aeronautical revenues
- S\$584M in EBITDA
- Debt-free balance sheet

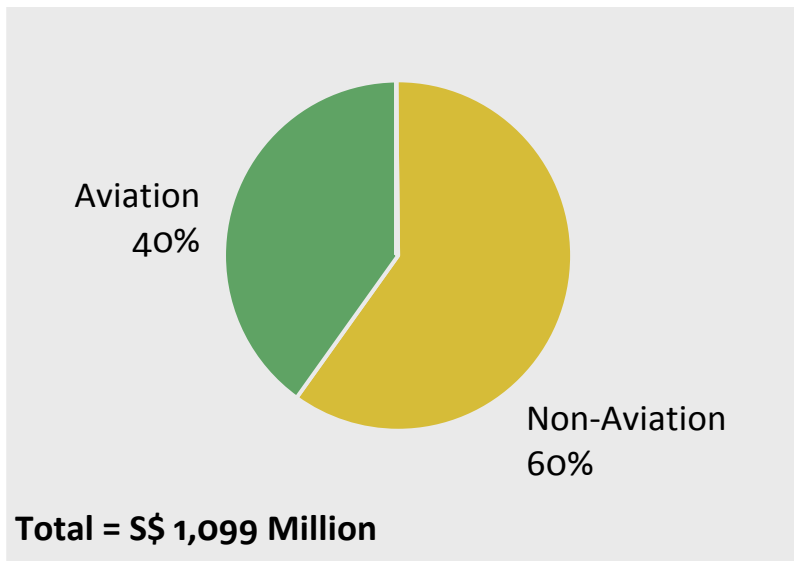
STRONG FINANCIAL PERFORMANCE

INCOME STATEMENT	<u>2006-07</u> (S\$ Millions)	<u>2005-06</u> (S\$ Millions)
Revenues	1,099	1,037
Aeronautical	445	435
Non-Aeronautical	654	602
Operating Expenditure	515	441
Operating EBITDA	584	595
EBITDA Margin	53%	57%
BALANCE SHEET	<u>2006-07</u>	<u>2005-06</u>
Current Assets	1,557	2,665
Cash and cash equivalents	873	1,134
Funds with fund managers	415	1,269
Non-Current Assets	4,260	3,968
Total Assets	5,817	6,632
Equity	5,415	6,155
Current Liabilities	248	263
Non-Current Liabilities	154	214
Total Equity & Liabilities	5,817	6,632

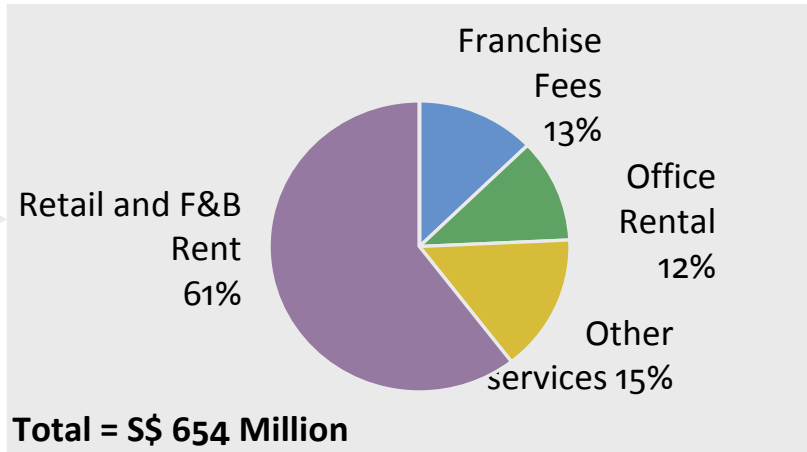
CHANGI AIRPORT REVENUE COMPOSITION

Year 2006-07

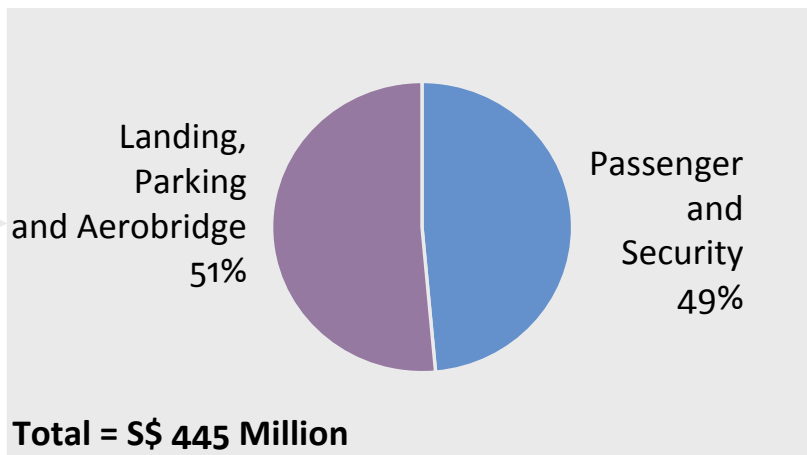
Total Revenues



Non-Aeronautical Revenue Breakdown



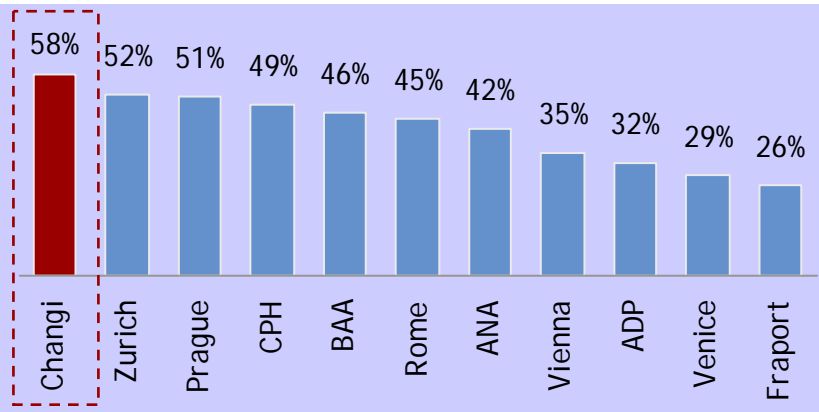
Aeronautical Revenue Breakdown



BENCHMARK VERSUS SELECTED AIRPORTS

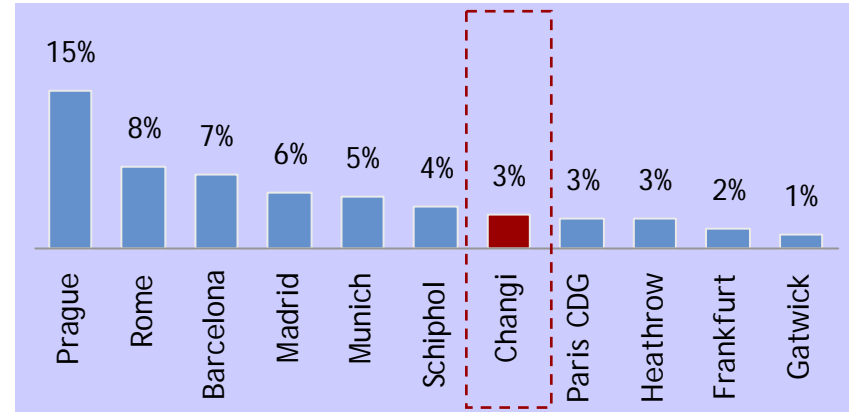
Excellent financial position

EBITDA margin—2005

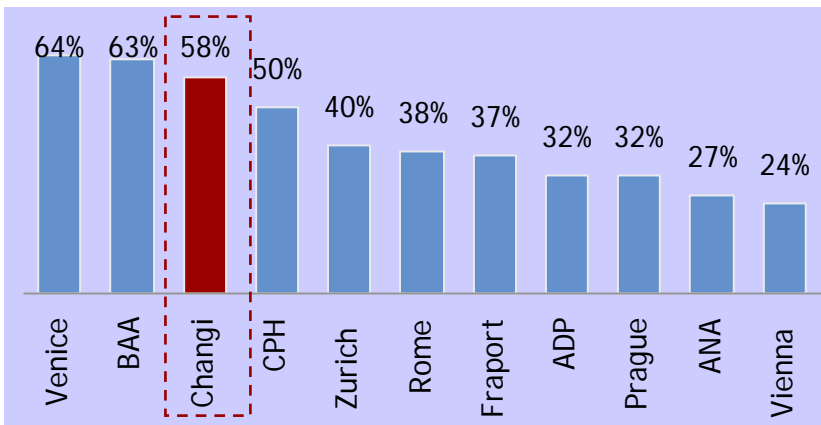


Moderate traffic growth

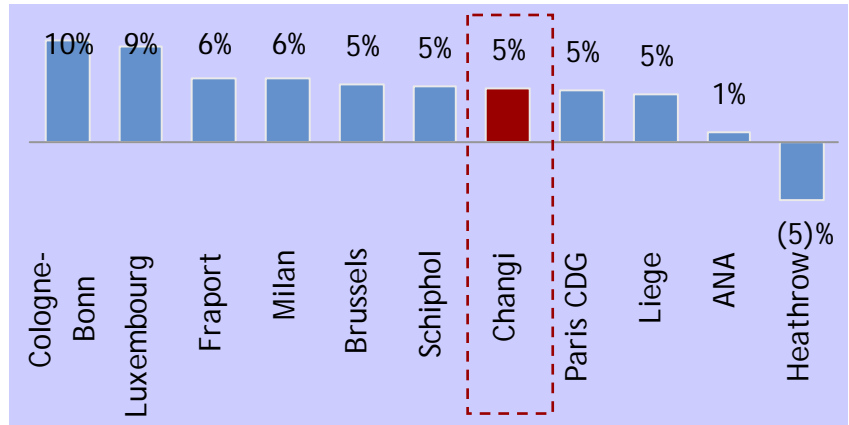
Passenger growth (CAGR 2001—05)



Non-aeronautical revenues as % of total—2005



Growth in cargo (CAGR 2001—2005)





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Key Success Factors

The Next 10 Years

KEY SUCCESS FACTORS

Key Success Factor 1



**Continuous Investment
in Infrastructure**

Key Success Factor 2



Operational Efficiency

Key Success Factor 3



Service Focus

Key Success Factor 4



Experience Creation

Key Success Factor 5



**Collaboration with
Airlines**



Key Success Factor 1

CONTINUOUS INVESTMENT IN INFRASTRUCTURE

- Three passenger terminals
- An air freight centre consisting of nine cargo terminals
- Built on 1,300 hectares of land of which 67% was reclaimed from the sea
- As at 2008, Changi can support 70 million pax and 3 million tonnes of cargo per annum
- There is reserve land to add a third runway and a fourth mega passenger terminal



TERMINAL 1

1981

- 21 million pax
- 280,000 m²
- 29 Aerobridges



TERMINAL 2

1990

- 23 million pax
- 358,000 m²
- 35 Aerobridges



TERMINAL 3

2008

- 22 million pax
- 380,000 m²
- 28 Aerobridges



AIRFREIGHT CENTER

2002

- 3 million tonnes
- 470,000 m²
- 9 terminals



AIRPORT SYSTEM

1981

- 2 Runways
- 1,300 Ha
- Mass Transit



BUDGET TERMINAL

2006

- 3 million pax
- 25,000 m²
- 10 Gates



OPERATIONAL EFFICIENCY



- Be efficient in various airport processes
- Examples of Key Performance Indicators (KPIs):

Process	Efficiency Standards
Check-in	90% within 10mins
Arrival Immigration	90% within 8mins
Security Screening	90% within 5mins
Baggage Delivery	90% within 12mins (First bag) 90% within 25mins (Last bag)
Passenger Loading Bridges (Docking)	95% within 2mins

SERVICE FOCUS



- Airport Quality Service Programme to drive customer service initiative
- Programme managed and driven by steering committee made up of airport senior management and key appointment holders of airport community

Listen to Passengers

- Conduct regular surveys
- Monitor customer satisfaction
- Solicit passengers' views

Service Campaign

- Drive the service excellence message across all staff levels
- Garner staff commitment

Training

- Train across all levels
- Groom service leaders

Recognition of Good Services

- Reward and motivate individuals and organizations
- Pick role models for others

EXPERIENCE CREATION



- Differentiates the airport; provides competitive edge over other airports
- “Wow” factor to give passengers a lasting enjoyable impression of airport as part of travel experience
- Examples:



Retail Development / Promotions

- Integral part of airport experience
- Competitive pricing and frequent promotions



Landscaping and Rest Areas

- Creates a soothing aesthetic ambience



Events and Extra Services

- Exhibitions and game shows
- Free internet, movie theatre, entertainment zone with cable TV and X-box games

COLLABORATION WITH AIRLINES



- A strong home-based carrier is critical to the success of the airport
- Liberal aviation policies to allow airlines to grow
- Working with airlines in developing new routes and strengthening existing ones to secure long-term traffic growth
- User friendly policies through frequent consultation on airline needs
- Airline incentive schemes in the form of waiver of fee/charges in new routes developed
- Competitive aeronautical charges to help airlines bring down operating costs



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**Strengthen the
Changi Hub**



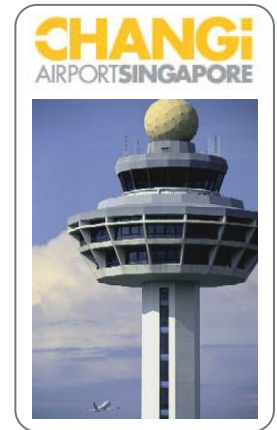
**Low-cost carrier (LCC)
Growth in Asia**



**Developing Human
Resources**



**Driving Overseas
Investment**



STRENGTHEN THE CHANGI HUB

Cost Competitiveness



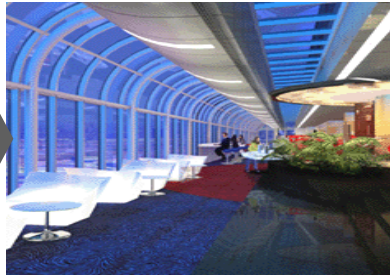
- Maintain competitive fees
- Maintain highest level of operations, safety and security standards
- Implement leading technologies

Building Capacity Ahead of Demand



- Continue to plan and invest in airport infrastructure
- Design innovation

Passenger Experience



- Continue to redefine passenger experience
- Provide differentiated experience
- Continue to develop world class retail offerings

LOW-COST CARRIER (LCC) GROWTH IN ASIA

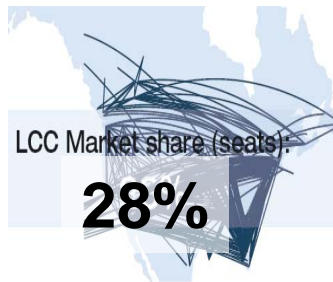
Changi Airport's Budget Terminal



- \$45 million facility
- Capacity of 2.7 million pax per annum
- Handled 1.8 million pax in 2007
- \$10 million expansion in July 2008 to increase capacity to 7.0 million pax

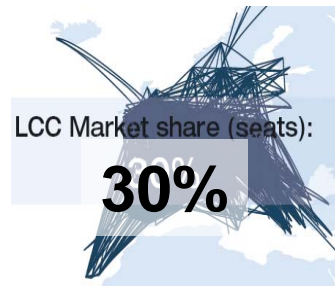
- Increasing importance of LCC in Asia
- Ability to serve and to profit from this segment will be critical to an airport's competitive position going forward

North America



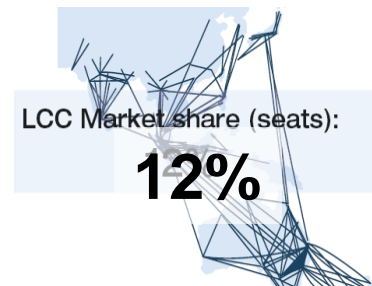
Population: 335 Million
No. of LCCs: 13

Europe



Population: 490 Million
No. of LCCs: 44

Asia



Population: 3,900 Million
No. of LCCs: 43

DEVELOPING HUMAN RESOURCES

Challenges

Train Experts

- Address inadequacy in the air transport industry's training and education infrastructure
- Very few institutions in the world offering structured airport skills training programs

Develop Leaders

- Need to develop approaches which are needed to both identify the pool of potential leaders and to encourage the development of these leaders



School of Aviation Management



School of Airport Emergency Services



School of Air Traffic Services

Background

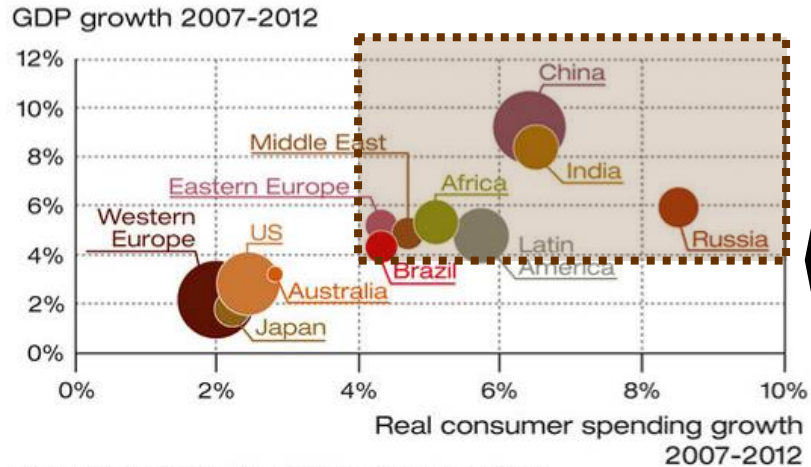
- Established in 1958 as training arm of CAAS
- Training conforms to ICAO standards and practices
- Trained 30,000 participants from 188 countries
- Equipped with the most up-to-date training equipment including ATS and Fire Simulators
- Located in a USD50 million facility in 1992





DRIVING OVERSEAS INVESTMENT

- Limit to growth in small Singapore market
- Leverage on 30 years of airport experience by participating in the development, management and operations of airports worldwide
- Focused initial investment activities in the emerging markets where the growth of aviation sector is still at a relatively early stage and available management expertise remains limited
- To build and manage a balanced portfolio of assets in both emerging and developed markets



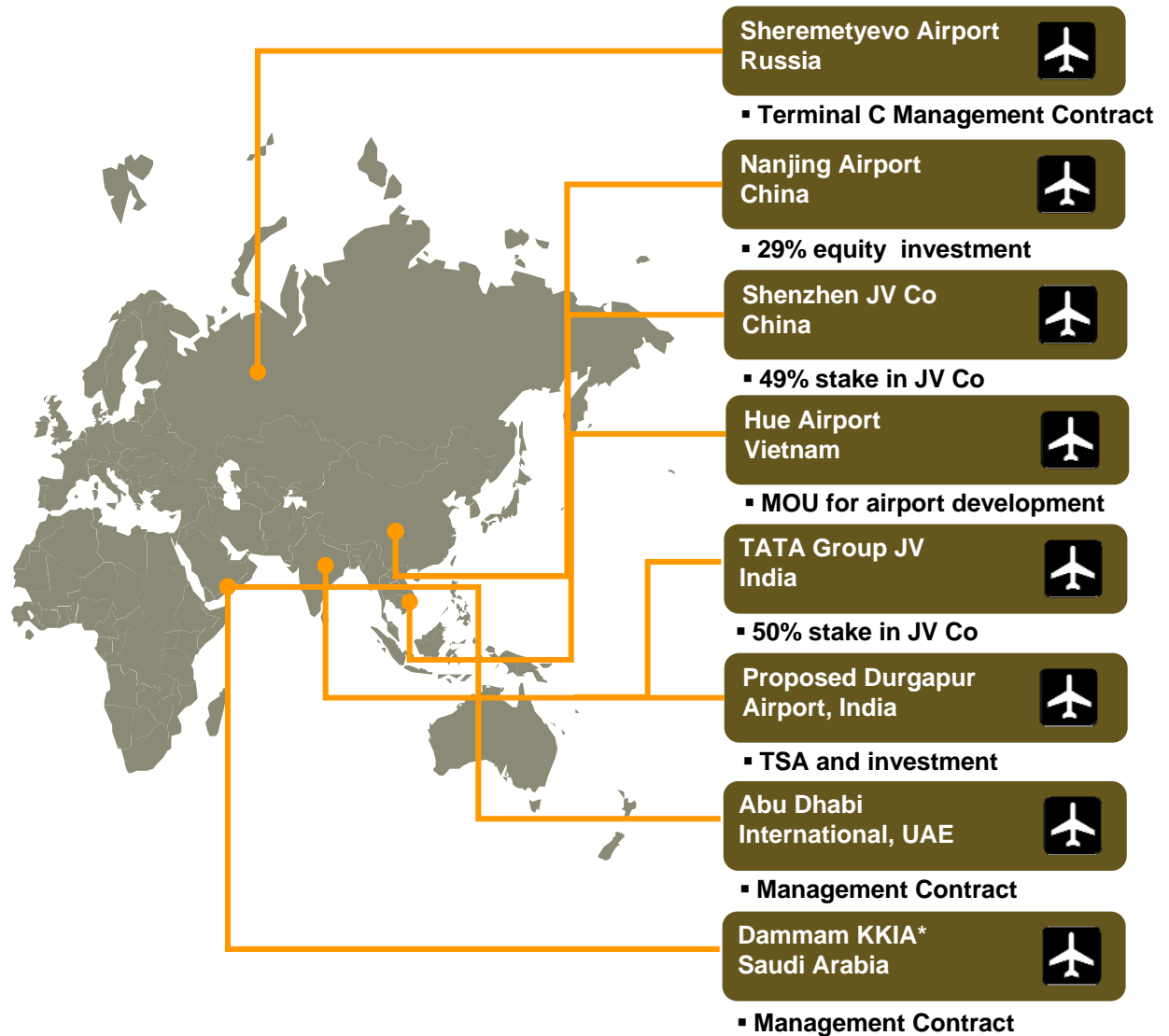
Bubble size proportional GDP at PPP (Purchasing Power Parity) in US\$billions in 2012

Primary Focus

- Nascent aviation growth
- Significant demand for investments
- Premium for operating expertise

**To invest up to
\$S\$1.5 Billion
in 5 years**

RECENT INTERNATIONAL ACTIVITIES





Thank you.