Latest Activities and Future Prospects of Asian Low-cost Carriers

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September 2009

Business model of low-cost carriers (LCCs)

- Keep planes in the air: aircraft utilization
- “Point-to-point” rather than “hub-and-spoke”: fast turnaround time at airport (about 20-30 minutes)
- Short-distance routes
- Same aircraft type (e.g. B737, A320)
- Secondary airports
- Direct sales via Internet
- “No frills” services
- **LCCs target**
  - Customers sensitive to price (vs. service quality): e.g. students, budget-conscious travelers
  - “First timers”: e.g. people switched from other transport modes
  - Business travelers who like frequency and travel short distance
LCC model in North America and Europe

- Pioneered by Southwest Airlines in 1970s, and evolved in US since the deregulation
- In Canada, WestJet began flying in 1996 and grew at 50% per year in early 2000s
- Repeated in Europe since mid-1990s (after EU liberalization): Ryanair, etc.
• LCCs: 25% of air passenger market in North America (US, Canada), and over 20% in Europe

• Southwest: largest domestic carrier in US since 2004 (carried nearly 100 million passengers in 2006)

• Ryanair: largest intra-European carrier
Impact of LCCs

- “Southwest Effect” becomes widely known
  - A rapid increase in traffic and a simultaneous fall in fares on routes where, or close to where, Southwest operates
  - Europe also has a similar “Ryanair Effect”

- Southwest, Ryanair and several other LCCs had been very profitable

- LCC operations represent a new business model
LCC model: Process Innovation

Service quality

Trade-off

Improvement

Innovation

New operations frontier

Trade-off

Process efficiency

Low

High

Low

High
Impact of LCCs (cont.)

• LCCs have imposed significant competitive pressures on the large network carriers (“full service airlines,” or FSAs), especially on the lower-end of the fare spectrum.

• FSAs set up their own LCC offshoots, or modify the FSA business model to be more LCC-like.
LCCs in Southeast Asia

- AirAsia (Malaysia), 2001
  - Leading LCC in Asia
  - It follows the Southwest LCC model
  - Joint-ventures (JVs): Thai AirAsia; Indonesia AirAsia
  - AirAsia X


Jetstar: established by Qantas (2004)

Lion Air, Indonesia (2000)

Cebu Pacific, Philippines (1996)
## Major LCCs in Southeast Asia

<table>
<thead>
<tr>
<th>Carrier</th>
<th>Country</th>
<th>Associated Carriers</th>
<th>Commencement</th>
<th>Route Description</th>
<th>Base/Hub Airports</th>
<th>In-Flight Service</th>
<th>Seat Assign.</th>
<th>FFP</th>
<th>Aircraft</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Asia</td>
<td>Malaysia; Thailand, Indonesia</td>
<td>Thai AirAsia, AirAsia, AirAsia X</td>
<td>2001 (as LCC), 2004 in Thailand and Indonesia</td>
<td>Domestic &amp; international (within 4 hours)</td>
<td>KLIA (LCCT); Kota Kinabalu; Kuching; Johor Bahru; Bangkok (Suvarnabhumi); Jakarta</td>
<td>No frill (food &amp; beverages for purchase)</td>
<td>Free (pre-boarding option)</td>
<td>No</td>
<td>Single [B737 to A320]</td>
<td>SMS Reservation; Web check-in; Extra baggage weight for a fee; 25-minute turnaround time</td>
</tr>
<tr>
<td>Air Asia X</td>
<td>Malaysia</td>
<td>Air Asia</td>
<td>2007</td>
<td>International long-haul (more than 4 hours)</td>
<td>KLIA (LCCT)</td>
<td>Flat-no or flat choice before boarding; Light meals for purchase onboard</td>
<td>Yes &amp; XL seat size (No business class)</td>
<td>No</td>
<td>Single [A330]</td>
<td></td>
</tr>
<tr>
<td>One-Two-Go</td>
<td>Thailand</td>
<td>Orient Airlines (Charter)</td>
<td>2003 [stop operation in July 2005]</td>
<td>Domestic</td>
<td>Bangkok (Suvarnabhumi)</td>
<td>Free snacks/drinks</td>
<td>Yes</td>
<td>No</td>
<td>Single [MD82]</td>
<td>Fused fire system; Prepaid card, Paid in bank and 7-11 payment</td>
</tr>
<tr>
<td>Nok Air</td>
<td>Thailand</td>
<td>Thai Airways International</td>
<td>2004</td>
<td>Domestic</td>
<td>Bangkok (Suvarnabhumi)</td>
<td>No frill (food &amp; beverages for purchase)</td>
<td>Yes &amp; Nok Pass (full service)</td>
<td>No</td>
<td>Mix [B737, ATR72 for local routes]</td>
<td>ATM reservation, 7-11 payment</td>
</tr>
<tr>
<td>Tiger Airways</td>
<td>Singapore</td>
<td>Singapore Airlines, SE AIR (in Philippines)</td>
<td>2004</td>
<td>International with 4 hours</td>
<td>Singapore (BT), Clark</td>
<td>No frill (food and beverages for purchase, but free for more than 3-hour flights)</td>
<td>Yes</td>
<td>No</td>
<td>Single [A320]</td>
<td>International ticketing on a few routes; Tiger Add-On products (extra baggage, sports equipment check-in and seat selection)</td>
</tr>
<tr>
<td>Jetstar Asia</td>
<td>Singapore</td>
<td>Qantas</td>
<td>2004</td>
<td>International within 5 hours</td>
<td>Singapore, Jakarta (with Valuair name)</td>
<td>No frill (food and beverages for purchase, but free for more than 3-hour flights)</td>
<td>Yes</td>
<td>World Perks</td>
<td>Single [A320]</td>
<td>Merged with Valuair in 2005</td>
</tr>
<tr>
<td>Lion Air</td>
<td>Indonesia</td>
<td></td>
<td>1999</td>
<td>Domestic &amp; a few international</td>
<td>Jakarta, Surabaya</td>
<td>Free snacks/drinks</td>
<td>Yes &amp; Business Class</td>
<td>Yes, (Lion Passport)</td>
<td>Mix [MD 80, MD 90, A320]</td>
<td>SMS Reservation; Aircraft Lease Business</td>
</tr>
<tr>
<td>Cebu Pacific</td>
<td>Philippines</td>
<td></td>
<td>1996</td>
<td>Domestic &amp; international</td>
<td>Manila, Cebu, KLIA (LCCT), Singapore (BT)</td>
<td>Fun Flight (Quiz, etc.)</td>
<td>Yes</td>
<td>No</td>
<td>Mix [A320, A319, A300]</td>
<td>SMS Reservation; Cargo service with some network carriers</td>
</tr>
</tbody>
</table>
“LCCs” (“Low fare” carriers?) in Northeast Asia

- A more recent phenomenon
- Japan: Skymark Airlines and Air Do in 1998
- Hansung Airlines (2005) and Jeju Air (2006) in South Korea
- OKay (2004) and Spring Airlines (2005) in Mainland China
- Oasis Hong Kong (2006); Viva Macau (2006)
# LCCs in Northeast Asia

<table>
<thead>
<tr>
<th>Country</th>
<th>Associated Carriers</th>
<th>Commencement</th>
<th>In-flight Service</th>
<th>Aircraft</th>
<th>Fleet Size</th>
<th>Base Airport</th>
<th>Destinations</th>
<th>FTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring Airlines</td>
<td>Mainland China</td>
<td>2005</td>
<td>No Frills</td>
<td>A320</td>
<td>8</td>
<td>Hongqiao, Shanghai, Melbourne</td>
<td>Over 20</td>
<td></td>
</tr>
<tr>
<td>Viva Macau</td>
<td>Macau</td>
<td>2006</td>
<td>Yes</td>
<td>B767</td>
<td>2</td>
<td>Macau</td>
<td>4 (Jakarta, Ho Chi Minh City, Sydney, Tokyo)</td>
<td></td>
</tr>
<tr>
<td>Oasis Hong Kong</td>
<td>Hong Kong</td>
<td>2006</td>
<td>Yes</td>
<td>B747</td>
<td>5</td>
<td>Hong Kong</td>
<td>2 (London, Vancouver)</td>
<td></td>
</tr>
<tr>
<td>Air Do</td>
<td>Japan</td>
<td>1998</td>
<td>No frills for B737, Radio &amp; music for B767</td>
<td>B767 &amp; B737</td>
<td>Sapporo</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Skymark Airlines</td>
<td>Japan</td>
<td>1998</td>
<td>No frills</td>
<td>B767 &amp; B737</td>
<td>Tokyo</td>
<td></td>
<td>Limited*</td>
<td></td>
</tr>
<tr>
<td>Skynet Asia</td>
<td>Japan</td>
<td>2002</td>
<td>Beverages</td>
<td>B737</td>
<td>Miyazaki</td>
<td></td>
<td>Limited**</td>
<td></td>
</tr>
<tr>
<td>Star Flyer</td>
<td>Japan</td>
<td>2006</td>
<td>Sweets, Beverages</td>
<td>A320</td>
<td>Kitakyushu</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Jeju Air</td>
<td>South Korea</td>
<td>June 2006</td>
<td></td>
<td>Bombardier Q400 &amp; B737</td>
<td>5</td>
<td>Jeju, Jeju-Gimpo, Jeju-Kimhae, Gimpo-Kimhae</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hansung Airlines</td>
<td>South Korea</td>
<td>August 2005</td>
<td></td>
<td>ATR 72-200</td>
<td>4</td>
<td>Cheongju, Cheongju-Jeju, Gimpo-Jeju</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yeongnam Air</td>
<td>South Korea</td>
<td>July 2008</td>
<td></td>
<td>Fokker 100</td>
<td>Kimhae</td>
<td>Kimhae-Jeju, Kimhae-Gimpo, Kimhae-Daejeon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jin Air</td>
<td>South Korea</td>
<td>July 2008</td>
<td></td>
<td>B737</td>
<td>Gimpo</td>
<td>Gimpo-Jeju</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Performance of Asian LCCs

- **AirAsia**
  - More cost efficient than Singapore Airlines, Thai Airways and Malaysia Airlines – three FSAs
  - Has the highest return on fixed assets among the four airlines
  - Cost per ASK (available seat km) the lowest among world’s LCCs
Costs per ASK (in US cents, 2002)

- **FSAs**
  - American Airlines: 11.3
  - British Airways: 12.7
  - JAL: 14.3
  - Cathay Pacific: 9.1
  - Singapore Airlines: 8.2

- **LCCs**
  - Southwest: 7.3
  - Ryanair: 7.1
  - AirAsia: 6.1

On average, LCCs’ unit cost is 30% below that of FSAs.
Spring Airlines

- Highest load factor and aircraft utilization rate in China
- Operational cost 18% lower than domestic industry average
- In 2007, highest profit per aircraft in the domestic market
- Achievements due largely to its travel agency background
## Spring Airlines’ Cost and Performance (in million RMB)

<table>
<thead>
<tr>
<th></th>
<th>Spring Airlines</th>
<th>Domestic industry average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airport charge as % of total cost</td>
<td>10-20%</td>
<td>15-20%</td>
</tr>
<tr>
<td>Landing/taking off fee</td>
<td>12%</td>
<td>-</td>
</tr>
<tr>
<td>Fuel cost as % of total cost</td>
<td>40%</td>
<td>25-30%</td>
</tr>
<tr>
<td>Security investment (2006)</td>
<td>60</td>
<td>-</td>
</tr>
<tr>
<td>Annual savings</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>Annual fuel savings</td>
<td>30</td>
<td>-</td>
</tr>
<tr>
<td>Load factor</td>
<td>95%</td>
<td>70%</td>
</tr>
<tr>
<td>Airfare vs. FSAs</td>
<td>36% lower</td>
<td>-</td>
</tr>
<tr>
<td>No. of flights operated (2007)</td>
<td>14 206</td>
<td>-</td>
</tr>
<tr>
<td>No. of passengers (2007)</td>
<td>2 350 000</td>
<td>-</td>
</tr>
<tr>
<td>Revenue (2007)</td>
<td>1 230</td>
<td>-</td>
</tr>
<tr>
<td>Profit (2007)</td>
<td>70</td>
<td>-</td>
</tr>
<tr>
<td>Profit (2005+2006)</td>
<td>67</td>
<td>-</td>
</tr>
</tbody>
</table>
However, many Asian LCCs have not been very successful so far

Japan: Air Do and Skynet Asia operated at a loss while Skymark made a profit only in 2004 (Murakami, 2008)

South Korea: Hansung Airlines and Jeju Air operated at a loss (Lee, 2008); Hansung exited in Oct 2008

China: very small LCC sector; Bankruptcy of East-star airline

→ “Low fare” carriers, rather than LCCs
Prospects of Asian LCCs

- Depend on:
  1) Further domestic regulatory reforms
  2) Regional regulatory environment and liberalization
  3) Secondary airports and low-cost terminals
  4) Continued economic growth
1) Further domestic regulatory reforms

- In Southeast Asia, entry of LCCs was facilitated by domestic deregulations.

- A major motivation is to boost tourism and business travel after the Asian financial crisis.

- E.g. in Thailand: domestic deregulation started in early 2000s.
  - Thai AirAsia, Nok Air, and One-Two-Go started domestic operation as LCCs.
  - Immediate reduction in airfares.
  - ... and dramatic increase in market share by LCCs.
China

- Chinese civil aviation has grown at 17% annually
- The market is dominated by “Big Three”: Air China, China Southern, China Eastern
- Significant regulatory barriers for LCC start-ups
  - Aircraft purchase and fleet buildup
  - Pilot recruitment
  - Fuel purchase
  - Airport charges
  - Route entry
  - Pricing
- Problem: competitors (state airlines) are also the regulator → distort the level-playing-field
A return to:

- state ownership?
  - e.g. United Eagle Airline acquired Si-Chuan Airlines
- consolidation?
  - e.g. pending merger of China Eastern + Shanghai Airlines
- regulation?
South Korea: Reducing entry barrier – License

• Scheduled service → “large license”
  ◦ Capital: 20 → 5 million US$
  ◦ Aircraft: 5 → 1 (double engine & more than 20 seats)

• International routes
  ◦ Require 2 years & 20,000 flights in domestic operation → change to 1 year & 10,000 flights

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LCC Boom in South Korea (June 2009 data)?

- Market share on the Gimpo-Jeju route
  - Korean Air: 41%
  - Asiana Airlines: 30%
  - LCCs: 29%
    - JIN Air (13%); Jeju Air (9%); Eastar Jet (7%)

- Market share in the domestic market
  - Korean Air: 48%
  - Asiana Airlines: 27%
  - LCCs: 25%
    - JIN Air (8%); Jeju Air (7%); Air Busan (7%); Eastar Jet (3%)
2) Regional regulatory environment and liberalization

- One disadvantage of Asian LCCs is the smaller geographic areas of economies
- LCCs confront the regulatory constraints applying in international (regional) markets:
  - Asia has a much more restrictive international regulatory regime than North America or Europe
- A liberal aviation market will be critical for the survival and success of Asian LCCs
E.g., Impact of regional open-skies on airline networks:

- Restrictive intra-Asia aviation regime results in suboptimal networks for LCCs in Asia could enter a new regional market only through JV arrangements or alliances
- Regional liberalization: Opening up numerous secondary city-pair markets, and forming more efficient networks
Recent policy developments:

- Unlimited flights between capital cities in ASEAN
- ASEAN will fully liberalize air transport services by 2015
- Creation of “ASEAN+3” (China, Japan, South Korea) as a formula for regional integration
- South Korea’s “open skies” agreement with China’s Shandong and Hainan provinces in June 2006, and an MOU with “open skies” extended to all regions of China by 2010
- Japan-South Korea “open skies” agreement in Aug 2007
<table>
<thead>
<tr>
<th>Airline</th>
<th>Fare before entry</th>
<th>Fare after entry*</th>
</tr>
</thead>
<tbody>
<tr>
<td>AirAsia</td>
<td>-</td>
<td>18.93**</td>
</tr>
<tr>
<td>Malaysian Airlines</td>
<td>220.00</td>
<td>26.00</td>
</tr>
<tr>
<td>Tiger Airways</td>
<td>-</td>
<td>42.00**</td>
</tr>
<tr>
<td>Singapore Airlines</td>
<td>220.00</td>
<td>156.00</td>
</tr>
</tbody>
</table>

Notes: * Average fare of 3Q08, before tax and fees (around S$80)  
** AirAsia and Tiger Airways even offer limited free seats (before tax and fees)
3) Secondary airports and low-cost terminals

- An important source of cost savings for LCCs is from the use of uncongested secondary airports.
- As compared to North America and Europe, Asia has much less secondary airports in metro areas that are available for LCCs.
- Asian LCCs rely mainly on primary airports for their base operation.
- Primary airports may invest in “low cost terminals”
Example: In Japan

1) Scarcity of secondary airports in metro areas:
   E.g., on both Tokyo-Fukuoka and Tokyo-Sapporo routes, LCCs pay the same amount of landing and slot-rental fees as FSAs, and engage in head-to-head competition with FSAs.

2) One consequence of using major airports is that slots are limited, resulting in LCCs’ insufficient departure frequency:
   E.g., on Tokyo-Sapporo route, Air-Do has limited departure frequency (< 10%)
Low-cost terminals in Asia

- Major ones:
  - Low-Cost Carrier Terminal (LCCT) in KL – opened in March 2006;
  - Budget Terminal (BT) in Singapore

- Low-cost can attract LCCs and produce a strong, positive impact on traffic volume for its airport

- On the other hand, airport charges are usually heavily discounted and airport revenue may go down

- In terms of runway capacity: Low-cost terminals may improve runway efficiency before the primary airport reaches its capacity for airport movements

- ... however, low-cost terminals may not be a net contributor to the airport’s financial performance when the airport reaches its capacity

- Since low-cost terminals have operated for only one or two years in Asia, their impact on LCCs is difficult to assess
### LCC Terminals in Southeast Asia

<table>
<thead>
<tr>
<th>Airport</th>
<th>Size (square meter)</th>
<th>Accessibility to/from Main Terminal</th>
<th>Capacity</th>
<th>Passenger Throughput</th>
<th>Discounted Airport Charges</th>
<th>Carriers Served</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-cost Carriers Terminal (LCCT)</td>
<td>Kuala Lumpur International Airport (KLIA)</td>
<td>35,290</td>
<td>30 minutes by bus (Charge)</td>
<td>10.0 million passengers; (Expansion to 15.0 million passengers in March 2009)</td>
<td>4.7 million (2006); 7.4 million (2007)</td>
<td>Parking; Office rent; Counter; Passenger service</td>
</tr>
<tr>
<td>Budget Terminal (BT)</td>
<td>Singapore Changi International Airport (SCIA)</td>
<td>25,000</td>
<td>5 minutes by bus (Free shuttle)</td>
<td>2.7 million passengers; (Expansion to 7.0 million passengers in 2009)</td>
<td>1.4 million (2006); 2.0 million (2007)</td>
<td>Office rent; Counter; Passenger service</td>
</tr>
</tbody>
</table>

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## Operational and Financial Statistics of AirAsia (Malaysia)

<table>
<thead>
<tr>
<th></th>
<th>Average Load Factor</th>
<th>Passengers (thousand)</th>
<th>RPK (million)</th>
<th>ASK (million)</th>
<th>Revenue/RPK (US cents)</th>
<th>Cost/ASK (US cents)</th>
<th>Aircraft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr-Jun 2005</td>
<td>76%</td>
<td>1 203</td>
<td>1 447</td>
<td>1 903</td>
<td>3.63</td>
<td>2.40</td>
<td>19</td>
</tr>
<tr>
<td>Apr-Jun 2006</td>
<td>83%</td>
<td>1 623</td>
<td>1 979</td>
<td>2 388</td>
<td>3.35</td>
<td>2.32</td>
<td>26</td>
</tr>
<tr>
<td><strong>Change</strong></td>
<td><strong>7% point</strong></td>
<td><strong>35%</strong></td>
<td><strong>37%</strong></td>
<td><strong>25%</strong></td>
<td><strong>-8%</strong></td>
<td><strong>-3%</strong></td>
<td><strong>37%</strong></td>
</tr>
<tr>
<td>Jul-Sep 2005</td>
<td>70%</td>
<td>1 193</td>
<td>1 358</td>
<td>1 953</td>
<td>3.61</td>
<td>2.41</td>
<td>21</td>
</tr>
<tr>
<td>Jul-Sep 2006</td>
<td>79%</td>
<td>1 945</td>
<td>2 152</td>
<td>2 713</td>
<td>3.08</td>
<td>2.20</td>
<td>30</td>
</tr>
<tr>
<td><strong>Change</strong></td>
<td><strong>9% point</strong></td>
<td><strong>63%</strong></td>
<td><strong>59%</strong></td>
<td><strong>39%</strong></td>
<td><strong>-15%</strong></td>
<td><strong>-9%</strong></td>
<td><strong>43%</strong></td>
</tr>
<tr>
<td>Oct-Dec 2005</td>
<td>76%</td>
<td>1 344</td>
<td>1 532</td>
<td>2 009</td>
<td>3.27</td>
<td>2.69</td>
<td>23</td>
</tr>
<tr>
<td>Oct-Dec 2006</td>
<td>82%</td>
<td>2 273</td>
<td>3 060</td>
<td>2 505</td>
<td>3.62</td>
<td>2.66</td>
<td>32</td>
</tr>
<tr>
<td><strong>Change</strong></td>
<td><strong>6% point</strong></td>
<td><strong>69%</strong></td>
<td><strong>64%</strong></td>
<td><strong>52%</strong></td>
<td><strong>11%</strong></td>
<td><strong>-1%</strong></td>
<td><strong>39%</strong></td>
</tr>
<tr>
<td>Jan-Mar 2006</td>
<td>80%</td>
<td>1 560</td>
<td>1 833</td>
<td>2 296</td>
<td>3.02</td>
<td>2.74</td>
<td>24</td>
</tr>
<tr>
<td>Jan-Mar 2007</td>
<td>77%</td>
<td>2 160</td>
<td>2 461</td>
<td>3 215</td>
<td>3.52</td>
<td>2.91</td>
<td>33</td>
</tr>
<tr>
<td><strong>Change</strong></td>
<td><strong>-3% point</strong></td>
<td><strong>39%</strong></td>
<td><strong>34%</strong></td>
<td><strong>40%</strong></td>
<td><strong>17%</strong></td>
<td><strong>6%</strong></td>
<td><strong>38%</strong></td>
</tr>
</tbody>
</table>
4) Continued economic growth

- While the development of Asian LCCs lags behind that of their counterparts in North America and Europe, overall air transportation has been growing faster for the last two decades, owing largely to the faster economic growth.

- Continued economic growth will be critical for the growth of LCCs in the region.
## Major Cities in the World (million passengers)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijing</td>
<td>Beijing &amp; Tianjin</td>
<td>6.5</td>
<td>17.7</td>
<td>18%</td>
<td>25.1</td>
<td>60.6</td>
</tr>
<tr>
<td>Shanghai</td>
<td>Hongqiao &amp; Pudong</td>
<td>4.9</td>
<td>13.3</td>
<td>18%</td>
<td>20.7</td>
<td>51.1</td>
</tr>
<tr>
<td>Guangzhou</td>
<td>Guangzhou</td>
<td>7.4</td>
<td>12.5</td>
<td>9%</td>
<td>13.8</td>
<td>33.4</td>
</tr>
<tr>
<td>Shenzhen</td>
<td>Shenzhen</td>
<td>0.02</td>
<td>4.4</td>
<td>138%</td>
<td>7.8</td>
<td>21.4</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>HKIA</td>
<td>19.2</td>
<td>28.3</td>
<td>7%</td>
<td>32.0</td>
<td>47.1</td>
</tr>
<tr>
<td>Tokyo</td>
<td>Narita &amp; Haneda</td>
<td>62.7</td>
<td>75.0</td>
<td>3%</td>
<td>84.1</td>
<td>100.3</td>
</tr>
<tr>
<td>Seoul</td>
<td>Gimpo &amp; Incheon</td>
<td>18.5</td>
<td>36.8</td>
<td>12%</td>
<td>36.5</td>
<td>44.2</td>
</tr>
<tr>
<td>Chicago</td>
<td>O’Hare &amp; Midway</td>
<td>59.9</td>
<td>70.4</td>
<td>3%</td>
<td>83.0</td>
<td>88.2</td>
</tr>
<tr>
<td>Atlanta</td>
<td>Hartsfield</td>
<td>37.9</td>
<td>68.2</td>
<td>10%</td>
<td>75.9</td>
<td>90.0</td>
</tr>
<tr>
<td>London</td>
<td>Heathrow, Gatwick &amp; Stansted</td>
<td>59.3</td>
<td>85.1</td>
<td>6%</td>
<td>105.6</td>
<td>123.4</td>
</tr>
<tr>
<td>Paris</td>
<td>Orly &amp; Charles De Gaulle</td>
<td>45.3</td>
<td>60.4</td>
<td>5%</td>
<td>71.0</td>
<td>87.1</td>
</tr>
</tbody>
</table>

(C) Prof. Anming Zhang, Institute for Transport Policy Studies, 2009
China’s domestic market

- 1st half of 2009: 20% growth
- In August 2009, growth rates:
  - Air China: 42%
  - China Eastern: 52%
  - China Eastern: 34%
Conclusion

- In Asia, there are LCCs (or Low-fare carriers) in, among others, Japan, South Korea, China, Malaysia, Thailand, the Philippines, Indonesia and Singapore.

- AirAsia and Spring Airlines among the success stories, and there has been dramatic recent LCC expansion in South Korea.

- Asian LCCs face smaller geographic areas of domestic markets, and various domestic and international regulatory barriers make their entry and growth difficult.

- Lack of secondary airports, while effect of low-cost terminals have yet been fully seen.
In Japan and South Korea:
Insufficient departure frequency is caused also by strong surface competition

E.g., though lands are separated by sea, Shinkansen express and highway-bus are strong competitors with airlines, in almost all domestic city-pair markets. Note: Tokyo is almost at the centre of the country

When surface competition is absent (due to sea), aviation markets are usually too small with few business travelers

In South Korea: High speed train (KTX) began service in 2004, and improvement in highway infrastructure
Here, a liberal Northeast Asia (NEA) market will definitely help

1) The 4th runway at Haneda – even better, a secondary airport in Tokyo – will definitely help

2) But, a liberal NEA market will open up numerous secondary city-pair markets in China, South Korea and Japan. These are the markets where FSAs tend not to operate, but LCCs can thrive with their business model (regional jets, one fare-class, no-frills, etc.)

3) LCCs are to stay and provide a welcome stimulus in domestic & regional markets while also helping more and more people with access to air transport

Thank you
Major cost components

30%: Aircraft Fuel
20%: Operations & Maintenance
12%: Wages
28%: Overhead Expenses
10%: Other

Source: Kim (2007)