Malaysia Industry Research
Aviation Industry
1H 2012
Aviation

1. Industry Profile 1
   1.1 Sector overview 1
   1.2 Sector size 3
   1.3 Competitive landscape 4
   1.4 Environmental scanning 5
   1.5 Recent developments in the industry 8

2. Market Trends and Outlook 9
   2.1 Key economic indicators-Malaysia 9
   2.2 Passenger traffic 11
   2.3 Fleet 13
   2.4 Capacity & demand 14
   2.5 Passenger load factor 14
   2.6 Aircraft movement trends 15
   2.7 Air cargo trends 16
   2.8 Air mail trends 17
   2.9 Malaysian airports 18
   2.10 Industry forecast 20

3. Leading Players & Comparative Matrix 21
   3.1 Leading players 21
      3.1.1 Malaysia Airline System Berhad 21
      3.1.2 AirAsia Berhad 23
      3.1.3 Malaysia Airports Holding Berhad 25
   3.2 Comparative matrix 27
   3.3 SWOT analysis 29

1 USD= 3.066 INR (October 1, 2012)
4. Tables & Charts

Table 1: World air passenger traffic statistics
Table 2: Emerging markets-Passenger statistics
Table 3: Government owned operators in Malaysian aviation sector
Table 4: Objectives and functions of department of civil aviation
Table 5: Malaysia-Key economic indicators
Table 6: Active fleet of Malaysian carriers
Table 7: Passenger load factor Malaysian carriers
Table 8: Operating performance of MAS
Table 9: Operating performance of AirAsia in Malaysia
Table 10: Balance sheet parameters
Table 11: Valuation matrix

Chart 1: Passenger traffic at international terminal
Chart 2: Air passenger traffic growth rate
Chart 3: Revenue share of different segments of Malaysian aviation sector
Chart 4: Turnover and profitability of major aviation players in FY11
Chart 5: Major political parties in Malaysia by percentage of seats
Chart 6: GNI per capita- Malaysia (USD)
Chart 7: Malaysia- Quarterly GDP growth rate
Chart 8: Malaysia- Exports
Chart 9: GDP- By sector
Chart 10: Total passenger traffic handled by Malaysian airports
Chart 11: Passenger traffic at international and domestic terminals
Chart 12: Passenger statistics of leading players
Chart 13: Market share of carriers based on passengers carried
Chart 14: Fleet size & average fleet age of scheduled Malaysian carriers
Chart 15: Y/Y change in capacity and demand for Malaysian carriers
Chart 16: Total aircraft movement handled by Malaysian airports
Chart 17: Air cargo at international and domestic terminals
Chart 18: Total cargo traffic handled by Malaysian airports
Chart 19: Air cargo at international and domestic terminals
Aviation

Chart 20: Total air mails handled by Malaysian airports
Chart 21: Air mails at international and domestic terminals
Chart 22: Type of airports in Malaysia
Chart 23: Malaysian airports by passenger traffic share
Chart 24: Malaysian airports by passenger traffic share
Chart 25: Malaysian airports by commercial aircraft movement
Chart 26: Forecast for passenger traffic at Malaysian airports
Chart 27: Forecast for commercial aircraft movement at Malaysian airports
Chart 28: MAS Shareholding
Chart 29: MAS financial highlights
Chart 30: Breakup of expenses of MAS
Chart 31: AirAsia Berhad-Shareholding
Chart 32: AirAsia financial highlights
Chart 33: Breakup of expenses of AirAsia
Chart 34: Malaysia Airports Holding Berhad-Shareholding
Chart 35: SAIL- Q1 financial highlights
Chart 35: Number of airports managed by MAHB
Chart 36: MAHB group financial highlights
Chart 37: Breakup of revenues of MAHB
Chart 38: Capital expenditure and long term borrowing
Chart 39: Net changes in cash
1. Industry Profile

1.1 Sector overview

Over the last ten years, the Malaysian aviation industry went through a period of high growth with international passenger traffic growing at a CAGR of around 10%. In 2011, international passenger traffic was resilient and continued in its long term trend of recording a growth of 10.4%. Passenger traffic at domestic terminals also grew by 11% in the year. The total international air passenger traffic was around 30 mn in the year 2011.

![Chart 1: Passenger traffic at international terminal (in Mn)](chart1)

*Source: CEIC Data*

The aviation industry has played an important role in developing the country’s economy over the last few years. It helped by stimulating other sectors of economy like tourism, hospitality and trade. In terms of passenger traffic growth, Malaysia led the world. Its’ double digit growth in past few years surpassed that of the world several times.

![Chart 2: Air passenger traffic growth rate (In %)](chart2)

*Source: World Bank; CEIC Data*
Malaysia’s was the 22nd largest civil aviation market in the world as of 2010, and constituted 1% of the world’s air passenger traffic.

Table 1: World air passenger traffic statistics (2010)

<table>
<thead>
<tr>
<th>Country</th>
<th>GNI per capita</th>
<th>Total passenger traffic (In Mn)</th>
<th>Percentage of world traffic</th>
<th>Total population (In Mn)</th>
<th>Ratio of passenger traffic to population</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>47,350</td>
<td>707</td>
<td>27.3%</td>
<td>309</td>
<td>2.29</td>
</tr>
<tr>
<td>China</td>
<td>4,270</td>
<td>268</td>
<td>10.3%</td>
<td>1,338</td>
<td>0.20</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>38,140</td>
<td>124</td>
<td>4.8%</td>
<td>62</td>
<td>2.00</td>
</tr>
<tr>
<td>Germany</td>
<td>42,970</td>
<td>112</td>
<td>4.3%</td>
<td>82</td>
<td>1.37</td>
</tr>
<tr>
<td>Japan</td>
<td>42,050</td>
<td>94</td>
<td>3.6%</td>
<td>127</td>
<td>0.74</td>
</tr>
<tr>
<td>Brazil</td>
<td>9,540</td>
<td>77</td>
<td>3.0%</td>
<td>195</td>
<td>0.40</td>
</tr>
<tr>
<td>Ireland</td>
<td>41,720</td>
<td>76</td>
<td>2.9%</td>
<td>4</td>
<td>17.09</td>
</tr>
<tr>
<td>Canada</td>
<td>43,250</td>
<td>67</td>
<td>2.6%</td>
<td>34</td>
<td>1.97</td>
</tr>
<tr>
<td>France</td>
<td>42,190</td>
<td>65</td>
<td>2.5%</td>
<td>65</td>
<td>1.00</td>
</tr>
<tr>
<td>India</td>
<td>1,260</td>
<td>64</td>
<td>2.5%</td>
<td>1,225</td>
<td>0.05</td>
</tr>
<tr>
<td>Malaysia</td>
<td>7,760</td>
<td>26</td>
<td>1.0%</td>
<td>28</td>
<td>0.93</td>
</tr>
</tbody>
</table>

Source: World Bank Data

Malaysia had the fourth largest air passenger traffic in the South and Southeast Asia region, after China, India and Indonesia. However, in terms of passenger traffic to population ratio, Malaysia stood first among the emerging markets of Asia. Thus, Malaysia has emerged as a major air transport hub in Asia, with many international passengers using it as a base from which they travel in Asia.

Table 2: Emerging markets (Asian countries)-Passenger statistics (2010)

<table>
<thead>
<tr>
<th>Country</th>
<th>GNI per capita</th>
<th>Total passenger traffic (In Mn)</th>
<th>Percentage of world traffic</th>
<th>Total population (In Mn)</th>
<th>Ratio of passenger traffic to population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia</td>
<td>7,760</td>
<td>26</td>
<td>6%</td>
<td>28</td>
<td>0.93</td>
</tr>
<tr>
<td>China</td>
<td>4,270</td>
<td>268</td>
<td>60%</td>
<td>1,338</td>
<td>0.20</td>
</tr>
<tr>
<td>Thailand</td>
<td>4,150</td>
<td>20</td>
<td>4%</td>
<td>69</td>
<td>0.29</td>
</tr>
<tr>
<td>Philippines</td>
<td>2,060</td>
<td>19</td>
<td>4%</td>
<td>93</td>
<td>0.20</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2,500</td>
<td>35</td>
<td>8%</td>
<td>240</td>
<td>0.15</td>
</tr>
<tr>
<td>Vietnam</td>
<td>1,160</td>
<td>14</td>
<td>3%</td>
<td>87</td>
<td>0.16</td>
</tr>
<tr>
<td>India</td>
<td>1,260</td>
<td>64</td>
<td>14%</td>
<td>1,225</td>
<td>0.05</td>
</tr>
<tr>
<td>Total</td>
<td>2,809</td>
<td>446</td>
<td>100%</td>
<td>3,079</td>
<td>0.14</td>
</tr>
</tbody>
</table>

Source: World Bank Data
1.2 Sector size

According to a study conducted by Oxford Economics, the contribution of its aviation sector to Malaysia’s GDP was around MYR 7.3bn in 2009, or around 1.1% of GDP. The total contribution comprised revenues from airlines, airports and other services. The sector also generated 102,000 jobs in the country in 2009.

Chart 3: Revenue share of different segments of Malaysian aviation sector (FY09)

Source: Oxford economics

Of the country’s air-carriers, Malaysia Airlines was the largest in terms of revenue, but it registered a loss of MYR 2.5bn in FY12. The advent of low cost carriers ate into its’ profit margins. Passengers increasingly prefer low cost carriers over expensive full service carriers.

Chart 4: Turnover and profitability of major aviation players in FY11 (MYR Bn)

Source: Bloomberg
1.3 Competitive landscape

Aviation in Malaysia is a highly competitive and varied industry. It consists of a government owned full service carrier, low cost carriers, airport management service provider, infrastructure developers and aircraft maintenance service providers.

1.3.1 Threat of new entrants

Current regulations and policies favour foreign companies which want to own and start operations in the aviation sector of Malaysia. Though rising operational costs and declining profitability deterred potential entrants in this sector, the success of Air Asia has encouraged many low cost operators to start operations in the country. Low cost carriers like Jetstar, SilkAir and government owned Firefly are already operating in the country. The latest one to enter market is Indonesia based Lion Air. Thus, there is robust competition in the air.

1.3.2 Threat from substitutes

Since the global economic recession, clients and customers have become value-conscious. More and more potential customers are trading luxury business class in full service airlines for no-frill less expensive carriers, thereby negatively affecting the income of deluxe and luxury full service carriers. Not surprisingly, low cost carriers like Air Asia recorded profits in FY12 while Malaysia Airlines incurred losses. Thus, the threat from substitutes, or lower cost airlines, has definitely increased for full service providers, and takes away their market share.

1.3.3 Bargaining power of buyers

The growing number of low cost carriers has made air travel affordable to domestic travellers. The emergence of online booking systems has also enabled customers to compare fare prices and get the best possible deals. Their bargaining power has certainly increased compared to what it was few years ago.

1.3.4 Bargaining power of suppliers

The suppliers to the aviation industry consist of Boeing and Airbus, and other aircraft equipment and maintenance service providers. Due to rising passenger traffic world over, and especially among emerging markets, the demand for aircrafts has gone up. This has increased the bargaining power of suppliers, creating a supply/demand gap in the passenger aircraft market. With a limited pool of preferred aircraft suppliers, each of the world’s suppliers’ bargaining power is expected to increase in the near future.

1.3.5 Intensity of competitive rivalry

With the entry of new low cost carriers comes intense rivalry. They are highly price sensitive and don’t leave much room for premium fares. Companies have to spend a substantial amount of their budget in marketing and sales promotions to attract, acquire and retain customers. Apart from that, multinational airlines always pose a threat to the domestic players. Many international airlines use Kuala Lumpur, the capital of Malaysia as their regional hub. This further aggravates the competition.
1.4 Environmental scanning

1.4.1 Political environment

In Malaysia’s political structure, the King (Yang-di Pertuan Agong) is the head of the state and the Prime Minister is head of government. The government is federal in nature with power vested in the central federal government and 13 state governments. The country has a multi-party system but since the first direct election in 1955, only the ‘Alliance party’ coalition and its successor, the ‘Barisan Nasional’ (BN) coalition has been the ruling party. Hence, the political environment has been relatively stable in Malaysia. However, there have been allegations of corruption and restriction on freedom of the media by opposition parties. The predominant party in the ruling coalition is United Malays National Organization (UMNO). The Prime Minister of Malaysia has always been from UMNO. The opposition parties have united under a coalition known as ‘Pakatan Rakyat’ (PR) in preparation for the next general elections scheduled in 2013.

Chart 5: Major political parties in Malaysia by percentage of seats in parliament as of 2008 general elections

![Chart showing major political parties in Malaysia]

Source: star.com.my

1.4.2 Economic environment

The Malaysian government launched the Economic Transformation Programme (ETP) in September 2010. The programme intends to turn Malaysia into a high income economy, and targeting to raise Malaysia’s per capita income to at least USD 15,000 by 2020. That target can be achieved if the Malaysian GNI grows by 6% per annum. Aviation is expected to benefit a lot from this programme as rising disposable income will increase domestic as well as international tourism, which in turn will benefit the industry.
1.4.3 Social environment

Malaysia’s population is a young one. The median age was 26.8 according to ‘CIA- the World Factbook’ in year 2011. 29.6% of the country’s population was below 14 years of age. The younger population, with its rising purchasing power, will drive the growth of travel and tourism which in turn will increase the demand for air travel in years to come.

1.4.4 Technological environment

Airline companies together with airports are enhancing their technological infrastructure with new and improved aircraft, navigation systems, security systems and equipments. Malaysia Airports Technologies Sdn. Bhd. upgraded the baggage handling systems at the Malaysian airports to improve efficiency. The company also rolled out Bar Code Asset Tagging System (BCAT) in 14 airports.

1.4.5 Ecological environment

The government of Malaysia has been proactive in imposing policies for sustainable development in almost all sectors. Aviation is one of them. Efficient management of energy is one of the major objectives of all aviation companies in the country. All the major airports have planned to use photovoltaic cells as an energy source in the near future. The companies are also investing substantial amount of money to reduce their carbon footprints. In July 2012, AirAsia signed a fuel and carbon solutions agreement with GE Aviation. The agreement involves GE using its software and fuel-consulting expertise to help the airline reduce its fuel usage and emissions.
1.4.6 Legal and regulatory environment

The aviation sector in Malaysia is regulated by the Ministry of Transport. Like all such ministries, it is responsible for the monitoring, development, regulation and promotion of civil aviation in the country. It plays a crucial role in providing guidance to its associated organizations in the implementation of policy guidelines. The incumbent Minister of Civil Aviation is Y.B. Dato Seri Kong Cho Ha. The legislative framework of civil aviation in Malaysia is currently provided through the Civil Aviation Act 1969, and the Civil Aviation Regulations, 1996. Over the years, the Act and the Rules have gone through a large number of amendments. The ministry has a department of civil aviation (DCA) functioning under it which specifically caters to the needs of civil aviation in the country. The government owns four operators in the aviation sector in the country.

Table 3: Government owned operators in Malaysian aviation sector

<table>
<thead>
<tr>
<th>Name of the operator</th>
<th>Operation</th>
<th>Founded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia Airports Holdings Berhad (MAHB)</td>
<td>Manage and supervise airports in Malaysia</td>
<td>1991</td>
</tr>
<tr>
<td>Malaysia Airlines System Berhad (MAS)</td>
<td>National full service carrier</td>
<td>1947</td>
</tr>
<tr>
<td>Firefly</td>
<td>MAS subsidiary that has regional operations</td>
<td>2007</td>
</tr>
<tr>
<td>MAS Wings</td>
<td>MAS subsidiary that operates in Sabah and Sarawak</td>
<td>2007</td>
</tr>
</tbody>
</table>

Source: Ministry of Transport

The aviation division of ministry is further divided into five units, namely, air transport, airport services, aerospace and industrial hubbing, licensing and rural services and safety/security and convention.

Table 4: Objectives and functions of department of civil aviation

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>To develop an efficient, economical and safe air transport system for passengers and cargo.</td>
<td>To plan and review the policies relating to air services from time to time.</td>
</tr>
<tr>
<td>To plan and implement infrastructural projects to meet the demands of air transport.</td>
<td>To expand the international air services network through air negotiations.</td>
</tr>
<tr>
<td></td>
<td>To ensure the planning, building and maintenance of airport infrastructure is in accordance with the specified standards.</td>
</tr>
<tr>
<td></td>
<td>To ensure that all existing rules and regulations in air transport / aviation are in accordance with the guidelines stipulated by the International Civil Aviation Organisation (ICAO).</td>
</tr>
</tbody>
</table>

Source: Ministry of Transport
1.5 Recent developments in the industry

1.5.1 Lion Air and NADI launch Malindo Airways

The competition in the low cost carrier segment in Malaysia heated up further when Indonesia based Lion Air and government owned National Aerospace and Defence Industries (NADI) announced the launch of a new airline named Malindo Airways. The new airline is expected to start operations in May 2013 with a fleet of 12 Boeing 737-900 ER aircraft. NADI will hold 51% of the joint venture while Lion Air will hold the remaining 49%. The company has announced it will offer ticket prices lower or at par with that of AirAsia. This will no doubt have some impact on Air Asia’s supremacy in the low cost segment in the region.

1.5.2 Malaysia Airlines operates its first flight with A380

In July 2012, Malaysia Airlines became the eighth airline in the world to operate the largest passenger Airbus A380. The inaugural flight was between London’s Heathrow Airport and Kuala Lumpur International Airport (KLIA).

1.5.3 MAS-AirAsia share swap deal update

According to a union official of Malaysia Airlines, the Prime minister of Malaysia has promised to review the share-swap deal between Malaysia Airlines System Berhad (MAS) and AirAsia Berhad. The union having 20,000 employees has been opposing the USD 364mn deal. In the August 2011 deal, Tune Air, which is controlled by AirAsia’s Tony Fernandes and Kamarudin Meranun, was allowed to take 20.5% stake in MAS and two board seats. The state investment arm Khazanah Nasional was given a 10% holding in AirAsia in exchange.
2. Market Trends and Outlook

2.1 Key economic indicators - Malaysia

Malaysia is the third largest economy in Southeast Asia with a population of around 28 mn. In the past decade, the country has gone through a period of rapid economic growth. The country had an average GDP growth rate of 5.1% during the last ten years. In 2011, the country posted a GDP growth of 5.1%. In the first quarter of fiscal year 2012, the growth slowed down as exports slowed due to Eurozone debt crisis. However, in the second quarter the economy rose again by recording a growth of 5.4% backed by growth in domestic consumption and services. According to United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), Malaysia’s GDP is expected to grow by 4.5% in FY12.

**Chart 7: Malaysia - Quarterly GDP growth rate (In percent)**

![Graph showing quarterly GDP growth rate from Q1FY11 to Q2FY12](source: Department of Statistics, Malaysia)

In the first seven months of fiscal year 2012, exports, which accounted for more than 90 percent of the total GDP, grew by 3.4% against the 2011 figure. This was almost half of the exports growth recorded in first seven months of 2011 against the 2010 figure.

**Chart 8: Malaysia - Exports (in MYR Bn)**

![Graph showing exports from January to July FY12](source: CEIC Data)
Services contributed 54.6% to the GDP followed by manufacturing (25.4%) and mining and quarrying (8.3%) in the second quarter of fiscal year 2012. The contribution of services grew by 6.3% against its 2011 second quarter figure. Construction recorded the highest sectorial growth of 22.2% backed by government spending.

Chart 9: GDP- By sector (Q2FY12)

Source: Department of Statistics, Malaysia

The country has been struggling in its quest to reduce its fiscal deficit these past few years. However in fiscal year 2011, the deficit reduced to 5.0% of GDP, outperforming the government target of 5.4%. Increasing fuel subsidies are also putting pressure on the fiscal positions of the government. The Government’s debt to GDP ratio increased to 53.8% of GDP in 2011. The country also recorded an increase in its foreign reserves which reached a figure of USD 132 bn at the end of 2011. These economic indicators helped the country in attracting foreign direct capital inflows of USD 17 bn in 2011, even as net portfolio outflows decreased to USD 38.2 bn recording a y/y contraction of 58%.

Table 5: Malaysia-Key economic indicators

<table>
<thead>
<tr>
<th>Description</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP at current prices (USD bn)</td>
<td>223</td>
<td>193</td>
<td>238</td>
<td>279</td>
</tr>
<tr>
<td>GDP Growth (at constant prices, %)</td>
<td>4.8</td>
<td>-1.6</td>
<td>7.2</td>
<td>5.1</td>
</tr>
<tr>
<td>FDI inflows (USD bn)</td>
<td>0.0</td>
<td>5.4</td>
<td>14.1</td>
<td>17.0</td>
</tr>
<tr>
<td>Portfolio net inflows (USD bn)</td>
<td>0.0</td>
<td>-28.4</td>
<td>-90.4</td>
<td>-38.2</td>
</tr>
<tr>
<td>Debt to GDP ratio (%)</td>
<td>41.3</td>
<td>53.3</td>
<td>53.1</td>
<td>53.8</td>
</tr>
<tr>
<td>Exports ( % of GDP )</td>
<td>103.2</td>
<td>96.4</td>
<td>97.3</td>
<td>82.8</td>
</tr>
<tr>
<td>Total reserves (USD bn)</td>
<td>91</td>
<td>95</td>
<td>105</td>
<td>132</td>
</tr>
<tr>
<td>Current account balance ( % of GDP)</td>
<td>17.5</td>
<td>16.5</td>
<td>11.5</td>
<td>11.5</td>
</tr>
<tr>
<td>Fiscal deficit ( % of GDP )</td>
<td>4.6</td>
<td>6.4</td>
<td>5.4</td>
<td>5.0</td>
</tr>
<tr>
<td>Exchange rate (USD/MYR, average)</td>
<td>3.3</td>
<td>3.5</td>
<td>3.2</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Source: Department of Statistics, World Bank Data
2.2 Passenger traffic

The passenger traffic at Malaysian airports touched 64 mn in 2011, or a growth of 10.5%. However, in the first six months of 2012, passenger traffic grew only by 4.2% against the 2011 figure to reach 32.5 mn.

Chart 10: Total passenger traffic handled by Malaysian airports excluding transit traffic (In Mn)

Source: CEIC Data

Passenger traffic at international terminals grew by 5.1% y/y to reach 15.8mn in the first six months of 2012. Meanwhile, the passenger traffic at domestic terminals grew by 3.5% during the same period to 16.7 mn. Passenger traffic at international terminals accounted for 48.7% of the total passenger traffic in 1H12, with the rest distributed throughout domestic terminals.

Chart 11: Passenger traffic at international and domestic terminals (in Mn)

Source: CEIC Data
In FY11, Malaysia Airlines recorded a y/y passenger growth of 8.3% while AirAsia registered a y/y growth of 16.3%. Low cost carriers dominated the aviation sector during the year.

**Chart 12: Passenger statistics of leading players**

<table>
<thead>
<tr>
<th></th>
<th>FY10</th>
<th>FY11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia Airlines</td>
<td>15.7</td>
<td>17.0</td>
</tr>
<tr>
<td>Air Asia</td>
<td>25.7</td>
<td>29.9</td>
</tr>
</tbody>
</table>

*Source: CEIC Data*

In the second quarter of 2012, AirAsia led the air carriers in terms of passengers carried with a share of 30%. Malaysia Airlines was second with a market share of 20%. Other regional and global players accounted for the remaining 50%.

**Chart 13: Market share of carriers based on passengers carried (Q2FY12)**

*Source: Company disclosure*
2.3 Fleet

AirAsia and Malaysia Airlines led the Malaysian aviation in terms of fleet size. AirAsia completely re-equipped its Malaysian fleet with Airbus A320s in place of Boeing 737s in 2009. The company also ordered 200 Airbus A320 neos at the Paris Air Show in June 2011. This was the largest deal ever for commercial aircraft in a single order.

Chart 14: Fleet size & average fleet age of scheduled Malaysian carriers (September 2012)

Airbus dominated the Malaysian aviation sector, but was closely followed by Boeing. The fleet of Malaysian carriers predominantly consisted of Airbus A320 series and Boeing 737 series. These two models are suited to low cost carriers, and therefore dominate aircraft fleet. Of the top five Malaysian carriers, Airbus was the leading supplier with 47% market share while Boeing had a market share of 43%.

Table 6: Active fleet of Malaysian carriers

<table>
<thead>
<tr>
<th>Aircraft</th>
<th>Manufacturer</th>
<th>Air Asia</th>
<th>Air Asia X</th>
<th>MAS</th>
<th>Firefly</th>
<th>MASwings</th>
</tr>
</thead>
<tbody>
<tr>
<td>737</td>
<td>Boeing</td>
<td></td>
<td>58</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>747</td>
<td>Boeing</td>
<td></td>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>777</td>
<td>Boeing</td>
<td></td>
<td>17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A320</td>
<td>Airbus</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A330</td>
<td>Airbus</td>
<td></td>
<td>9</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A340</td>
<td>Airbus</td>
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<tr>
<td>A380</td>
<td>Airbus</td>
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<td>2</td>
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</tr>
<tr>
<td>ATR72</td>
<td>ATR</td>
<td></td>
<td>12</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Websites of Respective Companies; planespotters.net
2.4 Capacity & demand

AirAsia showed a good performance in the beginning of the calendar year 2012, with both demand and capacity going up. The available seats kilometres (in Mn) of AirAsia grew by 9% while its revenue passenger kilometres grew by 7% in the second quarter of FY12. On the other hand, Malaysia Airlines registered a decline both in available seats kilometres and revenue passenger kilometres during the same period.

![Chart 15: Y/Y change in capacity and demand for Malaysian carriers (Q2FY12)]

Source: Company disclosures

2.5 Passenger load factor

The utilization of available capacity for the two major carriers was around 77% for the first six months of 2012. AirAsia recorded a high passenger load factor of more than 80% while Malaysia Airlines (MAS) recorded a lower load factor due to on-going problems in the full service carrier. Both carriers lost few basis points on y/y basis with MAS losing more than AirAsia.

Table 7: Passenger load factor Malaysian carriers-H1FY12 (In %)

<table>
<thead>
<tr>
<th>Airlines</th>
<th>Q1FY12</th>
<th>Q2FY12</th>
<th>Q1FY11</th>
<th>Q2FY11</th>
<th>H1FY12</th>
<th>H1FY11</th>
<th>Y/Y Change in H1</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAS</td>
<td>73</td>
<td>74</td>
<td>76</td>
<td>76</td>
<td>73.5</td>
<td>76</td>
<td>-2.5</td>
</tr>
<tr>
<td>AirAsia</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>81</td>
<td>80</td>
<td>80.5</td>
<td>-0.5</td>
</tr>
</tbody>
</table>

Source: Company disclosures
2.6 Aircraft movement trends

The number of flights operated at Malaysian airports touched 632,000 in 2011 denoting growth of 9.3%. In the first six months of 2012, aircraft movement grew by 1.7% against the 2011 figure to around 318,000. Full service carriers experienced a decline in number of flights operated which pulled down the overall figure.

Chart 16: Total aircraft movement handled by Malaysian airports (In thousand)

![Chart 16: Total aircraft movement handled by Malaysian airports (In thousand)](image)

Source: CEIC Data

The number of flights operated at international terminals increased by 4.5% y/y to 117,000 in the first six months of 2012. Meanwhile, aircraft movement at domestic terminals increased by 0.5% during the same period to 201,000. Aircraft movement at domestic terminals accounted for 63% of the total passenger traffic in 1H12, with international terminals taking the rest.

Chart 17: Air cargo at international and domestic terminals (in thousand tonnes)

![Chart 17: Air cargo at international and domestic terminals (in thousand tonnes)](image)

Source: CEIC Data
2.7 Air cargo trends

The cargo traffic at Malaysian airports touched 900,000 tonnes in 2011, or the equivalent of a decline of 2% from the previous period. In the first six months of 2012, passenger traffic declined by 0.5% against the 2011 figure to reach 438 mn. The slowdown in the Eurozone in the first half of that year was the main reason for the decline in cargo traffic.

Chart 18: Total cargo traffic handled by Malaysian airports (In thousand tonnes)

Source: CEIC Data

Air cargo operations at international terminals declined by 0.3% y/y to 353,000 tonnes in the first six months of 2012. Meanwhile, air cargo at domestic terminals declined by 1.2% during the same period to 84,000 tonnes. Air Cargo at international terminals accounted for 81.1% of the total passenger traffic in 1H12, with the rest divided between domestic terminals.

Chart 19: Air cargo at international and domestic terminals (in thousand tonnes)

Source: CEIC Data
2.8 Air mail trends

Mail handled at Malaysian airports grew at a CAGR of 13.7% over the last six years to reach 32,000 tonnes. In FY11, air mails grew by 21.9% against the 2010 figure.

Chart 20: Total air mails handled by Malaysian airports (In thousand)

The number of mails handles at international terminals increased at a CAGR of 43% in the last six years to reach 24,000 tonnes in 2011. Meanwhile, air mails at domestic terminals declined at a CAGR of 10% during the same period to 8,000 in 2011 down from 13,000 in 2006. In 2011, air mails at international terminals accounted for 75% of the total air mails while the rest were handled by domestic terminals.

Chart 21: Air mails at international and domestic terminals (in thousand tonnes)

Source: CEIC Data
2.9 Malaysian airports

Airports in Malaysia are managed, supervised and developed mainly by Malaysia Airports Holding Berhad (MAHB) which is a government owned company. Apart from MAHB, there is Senai Airport Terminal Services (SATS) which manages Senai International Airport in Johor Bahru, Malaysia. Together, these two companies managed 40 airports in Malaysia as of September 2012.

Chart 22: Type of airports in Malaysia

Source: Ministry of Transport; MAHB

Kuala Lumpur International Airport (KLIA) led the Malaysian airports in terms of passenger traffic by a large margin. In FY11, KLIA accounted for 46% of the total passenger traffic in Malaysian airports. It was followed by airports at Sabah and Sarawak with a 10% share each. Sabah and Sarawak, the two states which lie in eastern Malaysia, are rich in natural resources and famous for ecotourism.

Chart 23: Malaysian airports by passenger traffic share (FY11)

Source: Ministry of Transport
KLIA again led the Malaysian airports in terms of cargo traffic. In FY11, KLIA accounted for 69% of the total cargo traffic at all airports. It was followed by airports at Pulau Pinang with a share of 13%. Pulau Pinang airport serves the Penang state of Malaysia which is famous for its electronics exports.

**Chart 24: Malaysian airports by passenger traffic share (FY11)**

Source: Ministry of Transport

In FY11, KLIA was the leading Malaysian airport in terms of commercial aircraft movement with a share of 30%. It was followed by airports at Sarawak and Sabah with a share of 16% and 11% respectively.

**Chart 25: Malaysian airports by commercial aircraft movement (FY11)**

Source: Ministry of Transport
2.10 Industry forecast

In the first six months of FY12, passenger traffic at the Malaysian airports grew by 4.2% y/y. We expect the trend to continue in the near term. The domestic passenger traffic is expected to cross the 66mn mark by the end of 2012.

Chart 26: Forecast for passenger traffic at Malaysian airports (In Mn)

Source: EMD

In the first six months of FY12, commercial aircraft movement at the Malaysian airports grew by 1.7% y/y. We expect the trend to continue in the near term. The commercial aircraft movement at the Malaysian airports is expected to touch the 640,000 mark by the end of 2012.

Chart 27: Forecast for commercial aircraft movement at Malaysian airports (In thousand)

Source: EMD
3. Leading Players & Comparative Matrix

3.1 Leading players

3.1.1 Malaysia Airline System Berhad

*Bloomberg: MAS: MK
*Reuters: MASM.KL

Malaysia Airline System Berhad, and its subsidiaries commonly known as MAS, is Malaysia’s largest airlines in terms of fleet size. The company operates flights to 61 destinations connecting 44 international and 17 domestic locations. It provides passenger and air cargo transportation services in Malaysia and internationally. The company was founded in 1947 and is based in Selangor, Malaysia. The company lists its shares on the Bursa Malaysia (KLSE: 3786). Malaysia’s sovereign wealth fund Khazanah Nasional Berhad is the largest shareholder with 66.37% holdings, and a blend of other institutional and non-institutional investors owns the remaining 33.63%.

Chart 28: MAS Shareholding (September 2012)

Source: securities.com

Malaysia Airways operates in both low cost and full service segments through its subsidiaries. ‘MAS’ is the flagship brand which caters to full service clientele, while its low cost carrier, “Firefly” serves value customers. Ahmad Jauhari Bin Yahya is the managing director of the company.

Table 8: Operating performance of MAS (As of H1FY12)

<table>
<thead>
<tr>
<th>Key Operating Indicators</th>
<th>Figure</th>
<th>Rank Among Malaysian Carriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Traffic Share</td>
<td>20%</td>
<td>2</td>
</tr>
<tr>
<td>Destinations Connected</td>
<td>61</td>
<td>2</td>
</tr>
<tr>
<td>Fleet Size</td>
<td>114</td>
<td>1</td>
</tr>
<tr>
<td>Passenger Load Factor (1H12)</td>
<td>73.5%</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Company Disclosure
The total revenue of MAS for H1FY12 was around MYR 6.4bn which was 4% lower than the H1FY11 figure. However, the company showed improved operational efficiency in the first half of the year with operating expenses declining by 8%. The operating loss of the company also declined by 48% y/y while the net loss declined by 31% to 521mn during the same period. The company is still in recovery mode and is struggling in its bid to increase the load factor as well as revenues.

**Chart 29: MAS financial highlights (In MYR Mn)**

![Chart 29: MAS financial highlights (In MYR Mn)](image)

Source: MAS Quarterly reports

Aircraft fuel expenses accounted for 42% of its total expenses in the first half of 2012. Staffing accounted for a further 19% of the total expenses while maintenance was third largest with 9%.

**Chart 30: Breakup of expenses of MAS (H1FY12)**

![Chart 30: Breakup of expenses of MAS (H1FY12)](image)

Source: MAS Quarterly reports
3.1.2 AirAsia Berhad

Bloomberg: AIRA: MK
Reuters: AIRA.KL

AirAsia Berhad and its subsidiaries commonly known as AirAsia is Malaysia’s largest airlines in terms of passengers carried. The group operates flights to 400 destinations across 25 countries. It provides passenger and air cargo transportation services in Malaysia and internationally. The company was founded in 1993 and is based in Selangor, Malaysia. The company lists its shares on the Bursa Malaysia (KLSE: 5099). Tune Air Sdn Bhd is the largest shareholder with 23.06% holdings and the remaining percentage is owned by other institutional and non-institutional investors.

Chart 31: AirAsia Berhad-Shareholding (September 2012)

AirAsia group operates in both low cost and full service segments through its subsidiaries. ‘AirAsia’ is the flagship brand which caters to value customers while full service clientele is served by its subsidiary ‘AirAsia X’. Aireen Omar is the CEO of the company. Apart from Malaysia, the company owns subsidiaries in Thailand (Thai AirAsia), Indonesia (Indonesia AirAsia), Philippines (AirAsia Philippines) and Japan (AirAsia Japan).

Table 9: Operating performance of AirAsia in Malaysia (H1FY2012)

<table>
<thead>
<tr>
<th>Key Operating Indicators</th>
<th>Figure</th>
<th>Rank Among Malaysian Carriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Traffic Share</td>
<td>30%</td>
<td>1</td>
</tr>
<tr>
<td>Destinations Connected</td>
<td>400</td>
<td>1</td>
</tr>
<tr>
<td>Fleet Size</td>
<td>59</td>
<td>2</td>
</tr>
<tr>
<td>Passenger Load Factor (1H12)</td>
<td>80%</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Company Disclosure
The total revenue of AirAsia for H1FY12 was around MYR 2.4bn which was 10% higher than the H1FY11 figure. However, the company saw a decline of 2% in its operating profit due to increased expenses. Fuel expenses grew by 13% while user charges grew by 14% y/y. The profit after tax of the company grew by 395% y/y. This was mainly due to the fair value gain that the company made by listing Thai AirAsia and offloading 4% of its stake in its Thai wing, which brought in MYR 1.16bn as seen on the company’s income statement.

Chart 32: AirAsia financial highlights (In MYR Mn)

Aircraft fuel expenses accounted for 48% of the total expenses of the company in first half of 2012. Staffing accounted for a further 14% of the total expenses while depreciation was the third largest contributor with 9%.

Chart 33: Breakup of expenses of AirAsia (H1FY12)

Source: AirAsia-Quarterly reports
3.1.3 Malaysia Airports Holding Berhad

Bloomberg: MAHB: MK  
Reuters: MAHB.KL

Malaysia Airports Holding Berhad commonly known as MAHB is Malaysia’s largest airport management company. The company manages airports in Malaysia as well as overseas. The company was founded in 1991 and has headquarters at Kuala Lumpur International Airport. The company lists its shares on the Bursa Malaysia (KLSE: 5014). Malaysia’s sovereign wealth fund Khazanah Nasional Berhad is the largest shareholder with 54.00% holding and remaining percentage is owned by other institutional and non-institutional investors.

Chart 34: Malaysia Airports Holding Berhad-Shareholding (September 2012)

Source: securities.com

MAHB manages both international and domestic airports in Malaysia through its subsidiaries. Bashir Ahmad Bin Abdul Majid is the managing director of the company. Apart from Malaysia, the company manages international airports in India (Delhi and Hyderabad), Turkey (Istanbul), and Maldives.

Chart 35: Number of airports managed by MAHB

Source: Company disclosure
The total revenue of MAHB group for H1FY12 was around MYR 1.5bn which was 15% higher than the H1FY11 figure. However, the company saw an EBIDTA growth of only 3% due to increase in expenses. Total expenses grew by 20% y/y due to increase in staffing cost, utilities and maintenance. The profit before tax grew by 4% while net profit of the company grew by 9% y/y due to 5% y/y decline in taxes.

Airport services accounted for 50% of the total revenues of the company in the first half of 2012. Construction revenues accounted for a further 28% of the total while retail revenues were the third largest contributor with 17%.

Source: MAHB-Quarterly reports
3.2 Comparative matrix

As per the latest reported data, MAHB had the highest current ratio among the three of the listed aviation players. It also had the lowest long term debt to equity ratio due to its conservative management policies. MAS had the lowest current ratio among the three and was struggling to regain profits. AirAsia had its debt and current liabilities under control as of 30\textsuperscript{th} June 2012.

Table 10: Balance sheet parameters

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
<th>MAS</th>
<th>AirAsia</th>
<th>MAHB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Period End Date</td>
<td>30-Jun-12</td>
<td>30-Jun-12</td>
<td>30-Jun-12</td>
</tr>
<tr>
<td>Total share capital</td>
<td>MYR Mn</td>
<td>8,338</td>
<td>1,504</td>
<td>2,530</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>MYR Mn</td>
<td>-6,903</td>
<td>2,824</td>
<td>1,705</td>
</tr>
<tr>
<td>Total equity</td>
<td>MYR Mn</td>
<td>1,508</td>
<td>4,328</td>
<td>4,235</td>
</tr>
<tr>
<td>Long term borrowings</td>
<td>MYR Mn</td>
<td>4,269</td>
<td>6,892</td>
<td>2,684</td>
</tr>
<tr>
<td>Total current liabilities</td>
<td>MYR Mn</td>
<td>9,527</td>
<td>2,817</td>
<td>721</td>
</tr>
<tr>
<td>Total current assets</td>
<td>MYR Mn</td>
<td>3,709</td>
<td>4,076</td>
<td>1,552</td>
</tr>
<tr>
<td>Total assets</td>
<td>MYR Mn</td>
<td>15,333</td>
<td>15,497</td>
<td>7,986</td>
</tr>
<tr>
<td>Long term debt to equity</td>
<td>Ratio</td>
<td>2.8</td>
<td>1.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Current ratio</td>
<td>Ratio</td>
<td>0.4</td>
<td>1.4</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Source: Bloomberg

As of October 1, AirAsia Berhad was the largest aviation company among the three players in terms of market capitalization. It also gave the highest earnings per share among the three over the preceding 12 months.

Table 11: Valuation matrix (As on October 1, 2012)

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
<th>MAS</th>
<th>AirAsia</th>
<th>MAHB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Capitalization</td>
<td>MYR Mn</td>
<td>3,342</td>
<td>8,478</td>
<td>6,728</td>
</tr>
<tr>
<td>Price</td>
<td>MYR</td>
<td>1.00</td>
<td>3.05</td>
<td>5.56</td>
</tr>
<tr>
<td>Price/Book (Most Recent Quarter)</td>
<td>Ratio</td>
<td>2.33</td>
<td>1.62</td>
<td>1.59</td>
</tr>
<tr>
<td>Earnings Per Share (Trailing 12 Months)</td>
<td>MYR</td>
<td>-0.68</td>
<td>0.60</td>
<td>0.39</td>
</tr>
<tr>
<td>P/E Ratio (Trailing 12 Months)</td>
<td>Mn</td>
<td>-</td>
<td>5.12</td>
<td>14.43</td>
</tr>
<tr>
<td>Average Volume (30 day)</td>
<td>Thousand</td>
<td>2,151</td>
<td>16,848</td>
<td>530</td>
</tr>
</tbody>
</table>

Source: Bloomberg
MAS had the highest capital expenditure in Q2FY12 among the three players. The company also recorded a net increase in its long term borrowings of MYR 1.9bn. Among the three players, only MAHB saw a net decrease in long term borrowings of MYR 3bn.

**Chart 38: Capital expenditure and long term borrowings-Q2FY12 (in MYR Mn)**

MAS saw a net cash inflow of around MYR 931bn in H1FY12 mainly by increasing its long term borrowing. AirAsia had a net inflow of around MYR 60mn backed gains made in its Thai arm. MAHB also saw a net cash inflow of MYR 47bn primarily due to cash raised from its private placement offer, which brought in MYR 498mn.

**Chart 39: Net changes in cash-FY12 (in MYR Mn)**

Source: Bloomberg
3.3 SWOT analysis

### SWOT analysis of MAS

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Largest airline in terms of fleet size</td>
<td>Large debt</td>
<td>Consistent increase in passenger traffic</td>
<td>Rise in fuel prices</td>
</tr>
<tr>
<td>Backed by the Government of Malaysia</td>
<td>Accumulated losses in last six quarters</td>
<td>Tourism growth in country</td>
<td>Global economic slowdown</td>
</tr>
<tr>
<td>Leadership in full service segment</td>
<td>Declining load factor</td>
<td>Expansion in low cost carrier segment</td>
<td>Increasing competition from low cost carriers</td>
</tr>
</tbody>
</table>

### SWOT analysis of AirAsia

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Largest Malaysian airline in terms of passenger traffic</td>
<td>Low market share in full service segment</td>
<td>Consistent increase in passenger traffic</td>
<td>Rise in fuel prices</td>
</tr>
<tr>
<td>Strong brand value as a low cost carrier</td>
<td>Rising operating expenses</td>
<td>Tourism growth in country</td>
<td>Growing competition in low cost segment</td>
</tr>
<tr>
<td>Strong financials</td>
<td>Declining load factor</td>
<td>Expansion in other countries of Asia</td>
<td>Hostile political environment may affect profitability</td>
</tr>
</tbody>
</table>
# SWOT analysis of MAHB

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Largest Malaysian airport management company</td>
<td>Rising operating expenses</td>
<td>Consistent increase in passenger traffic</td>
<td>Security threats particularly in Indian operations</td>
</tr>
<tr>
<td>Backed by the Government of Malaysia</td>
<td>Foreign exchange exposure</td>
<td>Tourism growth in country</td>
<td>Global economic slowdown</td>
</tr>
<tr>
<td>Strong financials</td>
<td>Lower growth in profitability</td>
<td>Expansion in other countries of Asia</td>
<td>Regulatory threats in foreign countries</td>
</tr>
</tbody>
</table>

**Notes:**
Fiscal Year assumed in report: January 1st to December 31st
1 USD = 3.066 MYR (October 1, 2012)

*The research report is based on material compiled from data considered to be reliable at the time of writing. However, information and opinions expressed will be subject to change without notice. Emerging Markets Direct Media Holdings LLC does not accept any liability directly or indirectly that may arise from investment decision-making based on this report.*