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READY FOR TAKE OFF
A CLOSER LOOK AT THE INVESTMENT FUNDAMENTALS OF THE AIRLINE INDUSTRY

By Alan Lok, CFA, Eunice Chu and Guruprasad Jambunathan

Perhaps it's the thrill of voyaging to a far-flung, unfamiliar place. Maybe it's the teasing prospect of a seat or—even better—an earnings upgrade. Whatever our reasons, we remain seduced and frustrated by the airline industry.

In a 2007 letter to shareholders, Warren Buffett observed that:

The worst sort of business is one that grows rapidly, requires significant capital to engender the growth, then earns little or no money—think airlines. Here a durable competitive advantage has proven elusive ever since the days of the Wright Brothers. Indeed, if a farsighted capitalist had been present at Kitty Hawk, he would have done his successors a huge favor by shooting Orville down.

In the beginning, airlines were a must-have sovereign accessory, an essential strategic asset with monopoly powers that conferred national pride and international prestige. That said, packing a soft-power punch wasn't cheap, and the industry was replete with loss-making state-owned companies.

To the relief of investors (and taxpayers), economic sanity eventually prevailed and privatisation, together with the introduction of low-cost carriers (LCCs), helped to forge a more sensible trading environment.

Old habits die hard, though, and aspects of a state-owned past haunt the airline industry. Intergovernmental deals dictate which airlines can fly and where they can land, and despite cheaper alternatives, national airlines still locate their hubs on their home turf. Industry pricing is also quixotic: a flight with two stopovers may be 40% cheaper than a shorter, more fuel-efficient, direct journey.

INDUSTRY TURBULENCE

Today's airline industry is fiercely competitive, with LCCs and ambitious ultra LCCs challenging the market share of traditional full-service carriers (FSCs). Airlines are also vulnerable to "events," including disease outbreaks (e.g., SARs, bird flu), acts of terror, and fluctuations in the price of oil: fuel charges can be over a third of an airline company's cost structure.

Also worth mentioning is that FSCs are overly sensitive to changes in the economic cycle, as economic downturns affect the demand for premium-class seating. These long-established operators also have a proportionately higher number of unionised employees who are prepared to take disruptive industrial action.

Furthermore, airline companies have little or no bargaining power with the upstream airplane manufacturers, Boeing and Airbus, who operate as a duopoly.

SIT BACK AND RELAX

Despite the turbulence, calmer skies do exist. Asia Pacific, the world's most promising growth engine, is dominated by young and affluent customers with a taste for travel. Also, flying has become an affordable mode of transport, with low oil prices, better technology, and competitive LCCs supporting a decline in fares. The nondiscretionary nature of demand, predominantly from the business sector, helps prevent a hard landing during periods of rough weather.

However, even with recent advancements, the industry is still far from operating at its best. To garner efficiencies, airline companies need to look at addressing crucial stumbling blocks, including

- how to work more efficiently with intermediaries, such as online travel agencies and search engines, to reduce costs and provide a customised experience;
- ways by which technology can eliminate the need for intermediaries; and
- the simplification of airline/customer interactions, which are still cumbersome as compared with Amazon or Uber, for example.

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MAPPING YOUR INVESTMENT ROUTES

In this section, we extract some important lines of enquiry from our sector analysis framework that will help to move your analysis forward. If you plan to invest in an airline company, consider these several factors before you make a final decision.

Leading airline operators usually offer several airline brands, which can be split into three groups: the traditional FSC carriers; the so-called hybrids, which have low-cost business strategies but still offer some full-service features; and the "pure" LCCs, which get passengers from A to B but provide little else. For this framework, we will classify the hybrids and the LCCs together.

To begin with, it is worth noting a company's route profile. Is the route profile dominated by low-cost brands or full-service operations? How does the company decide where to deploy each business model?

Having established the company's business model, figuratively look inside its aeroplanes and understand how seat demand reacts to changes in price. At a broad level, analyse if this differs according to passenger profile – leisure/business. If you would like to dig deeper, observe if price sensitivity varies with route type (e.g., short-haul versus medium or long haul; domestic versus international) and with the time of year.

Unless the company is a niche, single-country player, it will most likely offer a mixture of domestic and international routes. Study what these are and the number of passengers who travel for business compared with those who journey at their leisure. Does the airline plan to expand its route network or has it earmarked routes for closure?

NETWORKS AND FLEET MANAGEMENT

If your flights are always quiet or, conversely, constantly operating at full capacity, it may indicate that the company has capacity-related issues. Scrutinise which routes experience the most significant mismatch between supply and demand. What add-on services or promotions does the airline offer to increase the load factor, and do these have an impact on cost?

Not long ago, time spent at an airport was a reasonably enjoyable part of the flying experience. Now that time often feels like an endurance test. Airlines still need airports, however, so how do they decide which ones to use? Identify whether the airports an airline company is using are centrally located or situated many kilometres from the actual destination. Lastly, look at time slots and, where possible, gate numbers – this information can be quite revealing.

Old aeroplanes make passengers—and investors—nervous. Study the makeup of a company's fleet and determine its average age. Does it align with the operator's route profile (e.g., larger aircraft for long-haul routes; smaller planes for shorter trips)?

COMPETITION

Key routes, such as Singapore/Hong Kong, used to be the preserve of a select few FSC carriers. Fortunately, this arrangement has been disrupted by the LCCs, who introduced competition and sensible fare structures. Take time to look at the number of carriers on a company's key routes and determine how the market will evolve and the impact that evolution may have on demand and pricing.

Among the key quantitative metrics to track, ascertain the company's capacity growth expectations, measured in available seat kilometres (ASKs). Simultaneously, assess per-unit revenue expectations, also known as revenue passenger kilometres (RPKs).

TECHNOLOGY, EFFICIENCY, AND COST CUTTING

Earlier, we mentioned the statist mindset prevalent among airlines companies, which can influence attitudes toward technology. Consider how well an operator is embracing change. For example, does the airline offer web/mobile check-in, then follow through with automated bag-drop facilities? What about the use of robots in the baggage handling, cargo, supplies, cleaning, and refurbishment divisions?

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THE ENVIRONMENT AND CLIMATE CHANGE

Up to now, the airline industry has avoided intense environmental scrutiny, but that doesn't mean you shouldn't examine a company's plans to reduce emissions and become more fuel-efficient. Find out if the company monitors the cabin air quality of its passenger flights. Another line of enquiry could relate to the regulations governing noise produced by the company's aircraft during takeoff and landing.

PREPARE FOR LANDING

And finally, remember Warren Buffett and his gloomy view of the airline industry? Well in 2016, he spent more than USD1.3 billion accumulating stocks across four major US airlines: American Airlines, Delta, Southwest Airlines, and United Continental.

Changes of heart are, of course, free, but Buffet's actions serve to highlight the undulating dynamics of the airline business model: one minute it's a complete disaster and the next a heaven-sent opportunity. It also underscores why analysis is so enjoyable – you never know what you are going to discover.

About the Authors

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Sector Analysis: A Framework for Investors

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Infographic showing the step-by-step process of analyzing the Airline industry

01 TYPE OF AIRLINE

- FSCs (full service carriers)
- LCCs (low cost carriers)
- ULCCs (ultra low-cost carrier)

02 HEADWINDS FACING THE INDUSTRY

- Strong trade unions
- Little to no bargaining power with aircraft manufacturers
- Vulnerability to oil price volatility
- Vulnerability to social economic "events"
- Sensitive to general business cycles

03 FACTORS FAVORING THE INDUSTRY

- Growth in APAC markets
- Technological improvements
- Greater affordability compared to past
- Room for operational improvements /efficiencies

04 KEY AREAS OF ANALYSIS

- Competition on key routes
- Sensitivity of seat demand relative to pricing
- Company's traffic profile
- Cost structure
- Overall network and fleet management
- Capacity management
- Airport strategy
- Use of technology to improve efficiencies/cut costs

05 KEY METRICS TO TRACK

- Available seat kilometers (ASKs)
- Per-unit revenue expectations, also known as revenue passenger kilometers (RPKs)

06 ESG FACTORS

- Emissions control and fuel efficiency
- Air quality of passenger flights
- Noise during take-off/landing

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1. How sensitive is seat demand to changes in pricing?

a. How does demand in the different travel classes (leisure/business) react to changes in price?

b. How does price sensitivity/demand vary with route type (short versus medium; long haul and domestic versus international)?

c. Is demand consistent across positive and negative price changes?

d. How does this behavior vary across different classes of travel?

e. How much seasonal variation in price sensitivity does the company experience? Are there specific periods or months where it can charge higher prices?

2. What is the company's traffic profile?

a. What is the company's traffic mix between domestic and international routes?

b. What is the percentage split of the company's passengers who travel on business compared with those travel for leisure?

c. How does the company see this evolving? How does it intend to capitalize on those trends?

d. What are the company's route expansion plans? Are there specific routes where it has a focus?

e. Are there any routes that the company plans to shut soon? What are the reasons for doing so?

3. What is the impact of security and geopolitical issues on demand for air travel?

a. Does the company have an internal framework that identifies vulnerable routes?

b. Does the company believe that any of its routes are vulnerable?

c. How much will air traffic be disrupted by political and security-related issues? How frequently and for how long does the company expect these disruptions to occur?

d. How does the company intend to manage the impact of these disruptions?

4. What is the capacity to demand scenario in the company's key routes? How effective has the company's network and fleet management been?

a. Which routes are experiencing the most mismatch? What factors are causing this mismatch?

b. How does the company expect this to evolve? How does it plan to manage its capacity in this light?

c. How does the company forecast future demand? How does it plan capacity deployment?

d. Does the company observe seasonal variations in demand? If so, in which routes and how much variation does it expect?

e. How does the company manage seasonality to achieve optimal load factors and yields?

f. Are there specific periods when the demand is unusually low? If so, how useful are price discounts or other promotions in reducing this impact?

5. The company's airport strategy

a. How does the company decide which airports to fly from or to?

b. Does the company prefer the central or main airports or suburban airports?

c. Does the company have different strategies for the different routes it operates?

d. What are the airport and handling charges per passenger across different airports?

e. Are the main airports uniformly costlier to operate than their suburban counterparts?

f. How different are the traffic and yields between flights operating out of the two classes of airports?

g. How does the company expect this dynamic to develop in future?

h. What time slots does the company have in various airports in its markets? How many of these are in peak hours?

6. What are the macroeconomic growth trends in the company's key markets?

a. What are the disposable income levels in the company's key markets of service? How are these evolving?

b. Where does the company expect to see structural growth come from?

c. How much impact would the above changes exert on the company's business models?

d. What is the company's strategy to leverage these opportunities?

e. How useful does the company believe consumer and business confidence indicators are in forecasting macro and industry outlook?

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7. What are the trends in leisure travel in the company's key markets?

a. How favourable is the socio-cultural environment for sustained growth in leisure travel?
b. Which segment of the demographic is driving demand for leisure travel currently? How much of it is contributed by the younger age groups?
c. How does the company expect this to evolve and what impact will it have on nature of demand? How does it plan to adopt to and leverage from these trends?
d. What are customers' preferred destinations? How does this fit with its portfolio of routes? How does the company expect this to evolve?
e. Does the company currently offer or have plans to deliver packages to leisure travellers in partnership with other hospitality providers like hotels?

8. What is the level of market concentration and competition in the company's key routes?

a. How many carriers does the company typically compete with on its key routes?
b. Can the company provide information on its brand value?
c. How does the company expect competition to evolve? Does it anticipate fewer or more carriers to operate in its key routes?
d. What impact will this have on demand and pricing?

9. How easy is it for new players to enter the industry and compete? What are the entry barriers?

a. How easy or difficult is it to get a license from the civil aviation regulators?
b. Are there restrictions on foreign investments or ownership?
c. Can new players enter the market by partnering with existing carriers?
d. Are there underserved routes which a new player can target to gain entry?
e. Which of the company's routes are most vulnerable to competition?

10. Does the company operate a hub-and-spoke model?

a. Does the company have a primary or global hub? Where is this located? Does it have hubs in other regions?
b. How well connected are the company's hubs to critical routes and to the population centres they serve? How many flights (across all airlines) operate out of these airports in a typical week?
c. Do the airports that serve as the company's key hubs have space to support future growth in traffic?
d. When does the company expect its hubs to become saturated regarding traffic? Are these airports planning to expand capacity to keep pace with expected growth in traffic?

11. What are the company's business model and route strategies?

a. Does the company operate on a predominantly full-service or low-cost model or a hybrid?
b. What is the company's route profile in terms of low-cost flights vs full-service flights?
c. How does it decide where to deploy which model?
d. How different are the company's operating margins between the two models?

12. What are the company's code-sharing arrangements and related strategies?

a. What code-sharing agreements does the company have in place?
b. Which routes are the company planning to expand into by using code-sharing?
c. Which carriers does the company consider as potential partners? How does it choose its partners for this purpose?
d. How does the company decide to deploy code-sharing versus operating own flights? How frequently does it review this?

13. What is the potential for growth from providing connectivity to long-haul hubs?

a. Do such opportunities exist in the company's key markets?
b. How many of these does the company currently serve and expect to serve in future?
c. How much competition does the company face from other carriers/modes of transport in servicing these connecting routes?

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14. How does the effectiveness of the company's capacity management compare with that of its peers?

a. What are the company's load-factor spreads and how does this compare with peers?
b. Does the company offer add-on services or promotions to increase the load factor? What is the impact of these on costs?

15. What is the profile of the company's aircraft fleet?

a. What is the makeup of the company's fleet by aircraft type? What is the average age of its fleet?
b. Is the company's fleet profile aligned with its route profile (larger aircraft for long-haul routes; smaller aircraft for short and medium haul)?
c. How does the company's fleet's performance stack up on fuel efficiency? How much fuel is used per ASK (available seat kilometres) on average?

16. What is the route performance of the company's aircraft?

a. What is current turnaround time (TA) achieved by the company's flights?
b. What are the average TA times for short-haul and long-haul flights?
c. What are the company's targets for turnaround time?
d. What is the on-time operation record for the company's flights? What is the target?
e. How do the company's turnaround metrics compare to its competition?

17. What has been the company's safety track record? How does this compare with that of its peers?

a. What are the various measures and practices the company follow to ensure flight safety?
b. What metrics does the company use to evaluate those and what are its targets? What has been the company's track record in achieving those targets?
c. What has been the fatality rate of the company's operations?
d. What were the causes of these – accidents versus security-related and on-flight versus ground incidents?
e. What has been the company's Flight Incident Report rates?
f. Does the company participate in the Operational Safety Audit of the International Air Transport Association or any such equivalent?
g. Have any of the company's aircraft ever been grounded due to safety concerns?

18. In which areas does the company utilize technology to improve efficiency and cut costs?

a. Does the company offer web/mobile check-in to passengers?
b. Does the company provide automated bag drop facilities to its passengers?
c. Does the company use robots in its operations? For example, baggage handling, cargo and supplies, cleaning and refurbishment?
d. Has the company fully computerized its route planning, flight scheduling and crew deployment?
e. Is the company exploring the use of artificial intelligence to improve other operations?
f. Has the company ever experienced computer downtime? If so, what were the causes?

19. Has the company met its operating measures? How are these evolving and compare with those of its peers?

a. What are the capacity growth expectations (ASKs) over the next 3–5 years?
b. What are the company's per-unit revenue expectations (RPKs)?
c. How much yield-per-revenue passenger kilometre does the company currently generate? Which routes offer the highest yields? How seasonal are these yields?
d. What are the company's operating margins?
e. How does FX impact the company's RPK and CASK (cost per available seat kilometre)?
f. What is the company's hedging strategy concerning fuel prices and FX?

20. What is the company's financial leverage after factoring any off-balance sheet debt in the form of aircraft leases?

a. What has been the company's leverage ratio after considering aircraft rentals and off-balance sheet items (net debt including leases/EBITDA)? How does this compare with its peers?
b. What is the company's aircraft lease profile? How many of these are operating leases versus wet leases?
c. How does the company decide on ownership versus leasing versus rental? How does it determine the type of lease to use?

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21. How much revenue is derived from ancillary services and loyalty programmes?

a. What items constitute these services? Is the company planning to expand this basket?

b. How much revenue does the company expect to derive from these in the future? What are the margins from these services?

c. How useful are the company's loyalty programmes in getting repeat customers? What are the costs involved?

d. How much of the company's liabilities are associated with loyalty programmes?

22. What is the company's industrial relations policy and strategy?

a. How successful has the company been in retaining pilots and technical staff?

b. How vulnerable are the company's operations to potential industrial action? Has it experienced any such disruption in the past?

c. What is the structure and duration of the company's wage agreements?

d. How strong and active are the trade unions in the company's markets of operation? What percentage of the company's workforce is unionised?

e. Are the unions co-operative or antagonistic, in general?

23. How has the company performed on environmental and climate change related issues?

a. Establish the company's fuel consumption and emissions per revenue passenger kilometre/load tonne kilometre flown?

b. Does the company have a plan to reduce fuel and emissions intensity of its operations? If so, what measures are being undertaken?

c. What are the company's reduction targets? How is its track record in achieving these targets?

d. Does the company have or expect to have binding obligations under any existing or proposed market-based measures on emissions reduction such as the European Emission Trading Scheme - Aviation? If so, can it provide details of their operational and financial impact?

e. Does the company offer an option for passengers to buy carbon credits to offset the emissions resulting from their flight?

f. What are the regulations governing noise produced by the company's aircraft while taking off from and landing at different airports that the company operates from? What is the company's track record in complying with these requirements?

g. Does the company monitor the cabin air quality of its passenger flights? What measures does it undertake to ensure the quality is within acceptable limits as required by regulation/health standards?

h. How does the company ensure the safe and secured collection, handling and storage of passenger, employee and flight data?

i. Has the company ever experienced a data breach or been subject to information/cyber sabotage?

j. What are the company's obligations under the data privacy/security statutes of different jurisdictions? What measures does it undertake to ensure full compliance?