

CASE 15

Privatisation of Air India

DESCRIPTION

The case presents the analysis of an investment opportunity in Air India, the government-owned, national carrier of India, as it braces itself for privatisation in 2000. Students are asked to assess the attractiveness of the company to potential strategic partners and value it using comparable transactions, trading multiples, and DCF methods.

LEARNING OBJECTIVE

Introduce valuation and other issues in privatisation in emerging markets

SUBJECTS COVERED

Financial Management, Privatisation, Restructuring, Valuation

 This case was written by Aditya Agarwal, Siddarth Bafna, Ozlem Tanik, John Maniatis, and Alok Gupta under the supervision of Prof Campbell Harvey, Fuqua School of Business, Duke University, USA, as the basis for class discussion rather than to illustrate effective or ineffective handling of an administrative situation. The identity of the bidder has been disguised to preserve confidentiality.

INTRODUCTION

In mid-2000, Kapil Dev, VP (Strategy), Duke Air, was sitting at his desk thumbing through the information he had just received on Air India (AI), the national air carrier of India, about its proposed privatisation. The Indian government's tentative plans to offer a partial equity stake in Air India on September 8, 2000 resulted in major airlines forming strategic alliances to bid for the carrier, and the opportunities it presented in the South Asian market. Indian media reported that British Airways planned to partner with Indian domestic carrier Jet Airways for the coveted 26 per cent the government would allow a foreign carrier to own. Singapore Airlines (SIA) was reported to pursue the opportunity in conjunction with Indian conglomerate Tata Group. *The Economic Times* reported that even SkyTeam founding members, Air France and Delta Air Lines, were interested in bidding.

Prima facie, it looked good and Kapil was bullish about this opportunity. The documents projected expansion and profit, though there were a few points that would require closer scrutiny before the pitch could be made to senior management. He knew that India was a developing country that posed several risks. However, many of these risks could be mitigated. A presentation was to be made to the Board the next Wednesday and Kapil realised that he had some long days ahead if he had to do this by Wednesday.

India was the seventh largest and the second most populous country in the world (Exhibit 1). In the late 1980s and 1990s, India began to open up to the outside world. A series of ambitious economic reforms aimed at deregulating the country and stimulating foreign investment had moved India firmly into the front ranks among the rapidly growing Asia-Pacific countries. India's process of economic reform was firmly rooted in a political consensus that spanned diverse political parties. However, improving the living standards of the poor remained one of India's most pressing challenges. With a GDP of 485.2 billion US dollars but a per capita gross national product (GNP) of US\$ 440 in 1999, India continued to have the highest concentration of poverty of any country. Services had proved to be India's most dynamic sector in recent years, registering rapid growth in telecommunications and information technology (IT). Services accounted for over 48% of GDP in 2000, including airlines, banks, construction and small-scale private traders, as well as the public sector. Exhibit 1 also compares India and China on the basis of key economic indicators.

COMPANY BACKGROUND

History and Background

Tata Airlines started the first scheduled airmail service in India on October 15, 1932 with J.R.D. Tata flying a D.H. Puss Moth carrying the postal mail of Imperial Airways, from Karachi to Juhu, Mumbai, via Ahmedabad. In the airline's first full year of operations, it flew 155 passengers and 10.71 tonnes of mail over 160,000 miles. During the next four years, the fleet of Tata Sons was expanded by the addition of de Havilland Dh-83 Fox Moths, Miles Merlins and WACO WQC-6 biplanes. Gradually, new routes were added and flight frequencies within India were increased. To emphasise its new civilian status and its role as a public utility, Tata Airlines was converted into a Public Limited Company on 29 July 1946 and renamed Air India. At the end of 1947, Air India submitted a plan

to the Government for the formation of Air India Fina International Limited with the government participation to operate international services. The plan was approved and Air India International launched its first service to London via Cairo and Geneva on 8 June 1948 with Constellation aircraft. Exhibit 5 shows the current organisation structure of AI.

Ownership structure

The Government of India owned 100% of AI. (Exhibit 6 sets out capitalisation as of March 31, 1999.) As the sole shareholder, the government guaranteed some of the loans. AI would have to renegotiate the terms of some of these loans once AI was privatised.

Operations

Market share: AI was one of the designated international carriers out of India. AI flew to all the major continents. AI also competed with Indian Airlines (the government-owned domestic carrier) on a number of routes like the Gulf and South East Asia. Exhibit 7 gives an overview of the capacity of AI, Indian Airlines and other foreign carriers to/from India. In recent years, AI's capacity share had declined primarily due to its small fleet size, which meant that it was not able to offer services on some shorter routes economically and hence discontinued flights. In general, quality of service and frequency of flights had been the Achilles heel of AI. Additionally, the emergence of competitive carriers like Oman Air, Qatar Airways, Korean, Malaysian and Thai Airways had adversely impacted Air India's market share.

Route Network and Market Profile: AI operated flights to several destinations in the USA, the UK, Europe, the Gulf, South East and Far East Asia. This was possible due to AI's code sharing agreements (Exhibit 8). Air India was allowed to carry domestic traffic on all domestic legs of Air India services. Exhibit 9 gives the value of domestic overflow, normal and night fare traffic carried by AI for the last five years. As Exhibit 9 shows, this sector had grown substantially over the last five years.

Employees: AI being a public sector undertaking had a high portion of unionised workforce. Its employees were part of 3–4 large unions of India. Each of these unions had affiliations to political parties. In fact, at AI, even the pilots and the technical staff were unionised. AI had lifetime employment contracts with the unions. Lately, AI had started reducing the workforce by offering incentives such as Voluntary Retirement Schemes (VRS).

Markets and Competition: AI faced competition from large international carriers and national carriers of the countries to which it flew. AI was not in a position to offer daily flights to all the markets due to the small size of its fleet. Therefore, it was unable to capture a significant share of the market. AI was expected to offer daily flights to key locations like the US, the UK and Paris once it acquired a larger fleet. Exhibit 10 presents the fleet details of competitors and Exhibit 11 presents the profiles of markets served by AI.

Fleet Modernisation and Augmentation: AI fleet consisted of five types of aircrafts. In the short term, AI planned to rationalise the fleet by dry leasing A310s. The medium term plan was to

rationalise the fleet composition to four aircraft types by 2003–04 and the long-term plan was to have three aircraft types by 2007–08. The youngest aircraft in the fleet, the B747-400s would allow AI to optimise capacity deployment in profitable markets by operating at high capacity. The other two types of aircraft that AI planned to have in its fleet in the long term were the Small Capacity Long Range (SCLR) and Small Capacity Short Range (SCSR) aircraft types, which were yet to be selected. As most of the long-haul routes barring the UK/USA routes were low-density routes, AI preferred to operate smaller capacity aircrafts with greater frequency in these routes.

Revenue sources: AI generated most of its revenues from passenger, cargo and mail carriage (Exhibits 12–14). Although most of AI's revenues were in Indian Rupees the prices charged by AI were consistent with the prices charged by major competitors such as KLM Northwest. AI generated revenues from several sources as discussed below.

Passenger: AI was one of the better known Indian brands outside India. The advantages that AI enjoyed were ethnicity, the Indian cuisine and traditional Indian hospitality provided by the crew. AI also enjoyed a privileged position being the preferred carrier for the employees of the Government and PSUs.

Cargo: The Gulf, the US/UK, Europe, Far East and South East Asia were the key markets for cargo operations to handle exports from Indian companies. The US, UK, Europe, Far East and South East Asia were the main markets to handle imports. There was little seasonality in the traffic flow. AI was utilising its full capacity. As capacity was limited, emphasis was placed on a better mix of cargo; courier and high-density cargo. AI was in the process of working out arrangements with other carriers for space to ensure access to various global markets.

Mail Carriage: Air India was involved in the carriage of international mail of both Indian and Foreign origin.

Charter Operations: AI did not have a specific strategy for charter operations. Charter operations of AI were confined to the operation of VVIP flights to meet the requirements of the President, the Vice President and the Prime Minister of India. Fleet requirement for this purpose depended on their travel requirements. In addition, AI also operated charter operations to transport Haj pilgrims.

Services to Third Parties

Aircraft Maintenance: AI's MRO facility was essentially created to serve AI's fleet. Third-party work was limited to the available spare capacity. So far, no investments had been made nor had workforce been recruited with the specific aim of taking up third-party work.

Ground handling: AI was a leading ground-handling service provider in Indian airports. Although ground handling had been opened up for competition, AI had continued to maintain its market share. It provided ground-handling services to over 40 foreign airlines in seven international airports.

Operational and Traffic Statistics

Capacity and Traffic: The total capacity had seen a decline over the last five years. This meant shrinkage of routes and a reduction in revenue hours flown. However, the number of passengers carried had increased in the last five years. This resulted in a significant improvement in the load factor. Exhibit 15 highlights capacity and traffic for 5 years.

Aircraft and fleet utilisation: The average utilisation of aircraft had increased over the last two years (see Exhibit 16).

INDIAN AIRLINES

The divestment ministry had also indicated a desire to divest 49% of the government's share in India Airlines, the national domestic airlines. While Air India also operated domestic flights, its role and capabilities were limited and did not cover the major markets within India. Indian Airlines, on the other hand, was a dominant domestic carrier and hence complemented AI. Indian Airlines had staff strength of around 22,000 employees. Its annual turnover, together with that of its subsidiary Alliance Air, was well over ₹ 4000 crore (around US\$ 1 billion). Indian Airlines flight operations centred on its four main hubs—the main metro cities of Delhi, Mumbai, Kolkata and Chennai. Together with its subsidiary Alliance Air, Indian Airlines carried a total of over 7.5 million passengers annually. Recently, privately-owned carrier, Jet Airways, had slashed fares by 64% and instigated a price war in a bid to dominate the domestic market. The move prompted a swift response from state carrier Indian Airlines. Between them, the two airlines accounted for around 80 per cent of the domestic market. Air India, the international carrier, had a smaller share of domestic flights but it too responded to the news by promising cheaper fares on its internal routes. In general, IA had been losing market share to new private players. IA had not been able to respond to competition due to lack of resources, strong unions, high-interest expense (caused by a 19:1 debt to equity ratio) and plane mismanagement.

AI recorded a loss of ₹ 1.74 billion in 1998–99. Its accumulated losses were around ₹ 15 billion during the past five years. AI's internal accruals in 1999–2000 were expected to be around ₹ 2490 million. The airline was earlier expected to end the 1999–2000 fiscal with a loss well below ₹ 1 billion. The national flag carrier experienced a good year in terms of passenger loads. A decision to withdraw from key European routes also paid off.

Air India had taken two aircrafts on lease from Caribjet in September 1995 for two years, but cancelled the deal a year later. In January 1997, Caribjet started arbitration procedures and asked for ₹ 4 billion in damages. The payment to Caribjet combined with high aviation turbine fuel prices was expected to drive AI losses over ₹ 1 billion for 1999–2000.

In response to the losses, the GOI committed to infuse capital to allow it to modernise its fleet before the divestment process. This move was seen as a way to ensure success of the divestment process. Dev had been following these developments closely and noted that there was only a 40% chance that Indian Airlines divestment would go through by year 2005. He had talked to a few divestment commission members who had expressed concerns about competitive capabilities of Indian Airlines and concluded that if the divestment did not go through by 2005, it would be impossible to divest

Indian Airlines. Dev recognised the synergistic benefits of acquiring Indian Airlines along with Air India. As a rough estimate, he expected this acquisition to increase Air India cash flows by 15%. However, he also recognised that like Air India, Indian Airlines would require huge capital investments to make it competitive. He figured that the capital investment for Indian Airlines in first two years following divestment would match those of Air India.

EVOLUTION OF THE PUBLIC SECTOR IN INDIA

There was no public sector prior to independence with the exception of Railways, Post & Telegraph, Port Trust, Ordinance with Aircraft factories and a few government-managed undertakings like Salt and Quinine factories. However, driven by the pressure to rebuild a post-colonial economy, and the desire to be self-reliant, it adopted a socialist pattern leading to elaborate investments in the Public Sector. As these enterprises evolved during the controlled regime, they were set up to dominate strategically important areas and in fact most of these companies were market leaders in their areas of businesses. Most of them enjoyed significant entry barriers but were now open to competition due to ongoing deregulation. The government had majority ownership in these enterprises, which limited management autonomy and affected the style of functioning

GENESIS OF AND RATIONALE FOR DIVESTMENT IN INDIA

During the mid-1980s, political opinion formed globally favoured a minimal role for government activity in industrialisation: Market economics was the new mantra. Perestroika in the USSR added to the disillusionment with Public Sector. The government appreciated the need to focus on development of social sector rather than the industry. The primary objectives of privatisation were as follows:

- Releasing the large amount of public resources locked up in non-strategic PSEs (Public Sector Enterprises), for redeployment in priority sectors like basic health, education and family welfare
- Reducing the public debt that had assumed unmanageable proportions
- Transferring commercial risk to the private sector wherever the private sector was willing and able to step in
- Releasing other tangible and intangible resources, such as the large workforce, currently locked up in managing the PSEs, and redeploying them in high-priority social sectors

The details on the divestment process in India and the various constituents in the process are given in Exhibit 2.

THE INVESTMENT OPPORTUNITY

The Divestment Commission was offering to sell a 40% equity investment in AI to a strategic partner (SP). This investment would be an all-cash deal. However, the government required the foreign airline

to partner with an Indian company. Besides offloading 40%, the commission had recommended that another 10% should be divested in favour of domestic institutional investors and 10% to domestic retail investors and employees, taking the total divestment up to 60%. This restricted the foreign holding to a maximum of 26% of the total equity. However, the strategic partner would be able to increase its holding in Air India to 51% by year 2005. Besides divesting Air India, the government was also looking to divest Indian Airlines (IA). The aim of IA divestment was to reduce Government of India's equity stake to 49% by divesting 26% of the stake to a strategic partner and by selling the rest of the 25% stake to financial institutions, employees and other investors.

The Indian government appointed JM Morgan Stanley as global advisor for the privatisation of Air India and interested partners were now awaiting the finalisation and approval of a shareholder's agreement.

AIR TRANSPORTATION IN 2000

The world airline system carried more than 1.5 billion scheduled passengers and 26 million tonnes of freight a year. It provided more than 24 million jobs for the world workforce and \$1,250 billion in gross output. Air transport activity was expected to double over the next ten to twelve years. Air transport was a very important industry for the continuance of international trade and commerce.

International Operations

- (a) **Passengers:** International passenger traffic to/from India was influenced by a number of factors like economic growth in the world and India, progress of economic liberalisation in India, employment opportunities in the Gulf and USA, emigration from India, etc. Tourism was another key factor that influenced the traffic into India. The number of tourists arriving in India had grown over the last 10 years by over 5% while the amount spent in dollar terms had grown by almost 9%.
- (b) **Cargo:** Relative exchange rate movements, trade and tariff barriers, relative economics of air vs sea freight, and such other factors that influenced the growth of international cargo traffic. According to IATA, international cargo traffic, to/from India was projected to grow at a compounded annual growth rate of 7.2% during 1999–2003.

Recent Global Trends A major trend in the airlines industry had been the growing concentration. Mergers, acquisitions and bankruptcies had played a significant role in driving concentration in the industry. The industry had progressively been deregulated in many countries. If the Indian industry followed the pattern seen in the US, it was likely that fierce price competition and further consolidation would ensue. A report on recent global trends in the Airline industry as collated by research analysts in India is given in Exhibit 3. Exhibit 4 presents the Indian aviation laws and regulations that impact AI's operations.

DUKE AIR

Following World War II, which had ceased all commercial air traffic in Finland, the assets of Duke OY were restructured and in 1953, Duke Air—Finland’s leading carrier—was born. As a state-owned company, Duke Air fulfilled its mission of facilitating travel both to and from Finland and within the country’s borders. Although generating large profits was not a primary goal, the huge losses that began to accumulate in the early 1990’s led to Duke Air’s restructuring and eventual privatisation in 1997. Duke Air emerged stronger following its restructuring. With an operating profit of US\$ 1.04 million, Duke Air was the most profitable European Airline in 2000. Globally, it was the largest cargo carrier and was second in scheduled passenger traffic. Although Duke Air had evolved into an international airline with flights to North America, South America, Asia, the Middle East and Africa, 40% of its revenue was still generated in Finland and 40% in Europe. Management was focused on reducing its dependence on the European market and had recently announced its goal of reducing European revenue to 50% of total revenue by 2010 (30% for Finnish revenue). An acquisition in India, the air travel market with the greatest growth potential in the world, would greatly contribute to this effort.

Although this would by far be its largest investment in India, Duke Air had looked at India closely and in fact had partnered with AI in the past. Duke Air was also a member of the Star Alliance—a consortium of 15 major airlines formed to allow for more seamless travel between regions. The alliance allowed passengers to accumulate and redeem frequent-flyer miles on any of the member airlines. The Star Alliance offered higher revenue to the airlines in the form of code-sharing agreements and timetable coordination to make their services more attractive to air passengers.

Financial Projections

Air India’s bankers had provided Duke Air with summary financial projections for Air India (Exhibits 18). Dev needed to do more analysis on these projections in order to determine an appropriate discount rate, NPV, and how sensitive the overall IRR was to each input. These financial projections reflected the fact that Air India would require huge capital expenditures during the first few years of acquisition. These capital expenditures were required to increase the fleet size and to modernise the fleet. However, these expenditures were also expected to catalyse Air India’s revenues. The revenues were expected to increase at an annual rate of 10% over the next 10 years. Besides a dramatic increase in revenues, it was also expected that the Strategic Partner would be able to improve operational efficiency of Air India by reducing staff and improving yield management. The cost projections reflected the impact of these expected operational efficiencies. The financial projections also reflected the fact that most of Air India’s expenditures related to aircraft purchase and fuel costs were in the US dollars and hence were sensitive to the exchange rate fluctuations. Projections were based on the assumption that debt to equity ratio for Air India would remain at 4 after year 2012. Dev observed that the high leverage was a cause of concern. However, he preferred the leverage due to the low cost of debt and the involvement of the government. Dev had prepared the following brief on the tax implications and fuel costs.

TAX IMPLICATIONS OF THE AIR INDIA DEAL

Direct taxes: The basic corporate income tax rate was 33%, which included a 30% national tax and a 3% local tax. The Civil Aviation Policy envisaged giving infrastructure status to Civil Aviation. This status enabled a company to get tax breaks. In addition, it became easier for the company to raise capital. Under Section 80-IA of the Income Tax Act, 1961, any company engaged in the infrastructure business was entitled to a 100% deduction of the profits of such business for a period of 5 years (to be selected by the company) in the first 15 years of the company. A deduction of 25% of income would be allowed for a further period of 5 years.

Sales Tax and Excise on ATF: Aviation Turbine Fuel (ATF) is one of the most significant costs of AI. In 1999–2000, fuel constituted about 17% of the operating expenses of AI. The price of fuel in India is administered by the Ministry of Petroleum, the Government of India. Fuel prices were higher in India because under the Administered Price Mechanism, the ATF price in India was linked to prices at Dubai, Doha or Singapore. Of these, the first two (which were more frequently used as benchmarks) were relatively expensive stations for ATF. Though the basic fuel prices were uniform in all states in India, the respective State Governments charged a sales tax. This rate varied from zero to 36% with the overall average being around 22%. On an average, AI paid between 30% and 40% higher price when compared to average international prices. Therefore, there was a proposal to declare ATF a “declared good” under the Central Sales Tax Act, 1956 (by which the maximum rate of sales tax would be capped at 4%). This would significantly reduce the burden of fuel prices. AI was the largest customer of the public sector oil companies. Despite this, AI was not getting any bulk discounts on its purchases. A quick analysis of Department of Energy’s data on ATF prices showed an annualised drift of 1% and a volatility of 20%.

BIDDING PROCESS

AI’s investment bankers and the divestment commission were holding a limited auction with approximately a dozen international airlines. Dev knew, however, that Duke Air’s four primary competitors were representatives of the three competing airline alliances. The investment bankers would take all bids received and narrow down to a list of two to three finalists based on strategic fit and competitiveness of initial bids. The bidders had the option to get out of the bidding process before the bids were finalised. Those airline alliances apparently interested in Air India included Virgin Atlantic-Singapore Airlines (SIA)-Tatas, British Airways-Jet Airways, Lufthansa-Sahara Airlines and a group that included Air France, Delta Airlines and AeroMexico. A brief description of potential bidders is given in Exhibit 19.

DUKE AIR’S APPROACH TO VALUING AIRLINES

Dev had valued potential acquisition targets before. While he leaned heavily on projections and advice from trusted industry analysts, determining the appropriate value of an airline was ultimately his responsibility. From his experience, he knew that his superiors were generally most interested in the

DCF analysis. He had received a simple model from AI's advisors, which had focused mainly on a comparables analysis (Exhibit 17). AI's bankers had provided valuation of the company based on multiples—P/E, EV/EBITDAR, EV/EBIT and Load Factor. But they mentioned that in recent years, EBITDAR had become the most common figure used by analysts, because it removed the effects of leases from operating cash flow.

However, Dev intended to use DCF analysis for valuation. He intended to use the comparables only for a sanity check.

CONCLUSION

Dev felt that he had a starting point for his valuation, but the fact that the target was a national airline in a centrally planned economy unsettled him. Certainly, this introduced considerations not normally dealt with in Duke Air's typical projects. He also recognised that this was an important opportunity for Duke Air to enter and dominate the Indian air travel market. He estimated that if Duke Air could acquire Air India, then it would have a 60% chance of acquiring Indian Airlines. This made the Air India acquisition a very important decision. He looked at the paper clipping from *The Times of India*, which said—"AI all set to fly free" and Dev thought that he wanted Duke Air to partner in AI's flight to freedom but he had little time to finish the valuation and arrive at the bid price.

Exhibit 1 Key Economic Indicators—India and China		
Country	India	China
GDP (US\$ b)	485.2	1180.1
GDP per head (US\$)	471	928
GDP per head (US\$ at PPP)	2,489	5,575
Consumer price inflation (av; %)	3.7	0.7
Current-account balance (US\$ b)	−3	20.1
% of GDP	−0.6	1.7
Exports of goods fob (US\$ b)	44.8	264.1
Imports of goods fob (US\$ b)	54.9	−232.6
External debt (US\$ b)	101.5	146
Debt-service ratio, paid (%)	13.3	6.3

Notes:

1. The projected inflation rate for India over next 15 years is 5%.
2. The projected inflation rate for the US over next 15 years is 2%.

Beginning of the Disinvestment Process

The disinvestment policy of GoI would be implemented in two phases. The recommendations of the disinvestment commission set up in 1996, which form the backbone of the Phase I of disinvestment, can be summed up as follows:

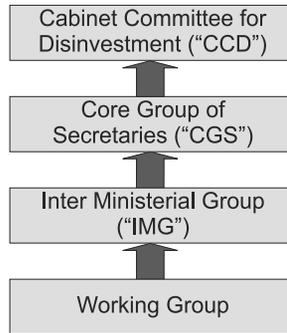
Exhibit 2 Disinvestment Process and Constituents	
Mode of disinvestment recommended	Number of PSEs
A. Involving change in ownership/management	
1. Strategic sale	29
2. Trade sale	8
B. Involving no change in ownership/management Offer of shares	
1. No change	11
2. No disinvestment	1
D. Closure/sale of assets	
Grand Total	58

Phase II—October 1999 onwards. The main feature of the policy can be culled out from the 2000–01 budget speech as follows:

- To restructure and revive potentially viable PSEs and to close down PSEs which cannot be revived. To emphasise strategic sales of identified PSEs.
- To bring down Government equity in all non-strategic PSEs to 26% or lower. To establish a systematic policy approach to disinvestment and to give a fresh impetus to this programme, by setting up a new Ministry of Disinvestment.
- To fully protect the interest of workers.

Main Constituents

The Cabinet Committee on Disinvestment is the apex decision-making body in the disinvestment process. The Ministry of Disinvestment is the key constituent and manages the routine functioning of the disinvestment process. MODI is helped by the relevant ministry and various other Government departments and ministries during the process.



Divestment Process and Role of MODI

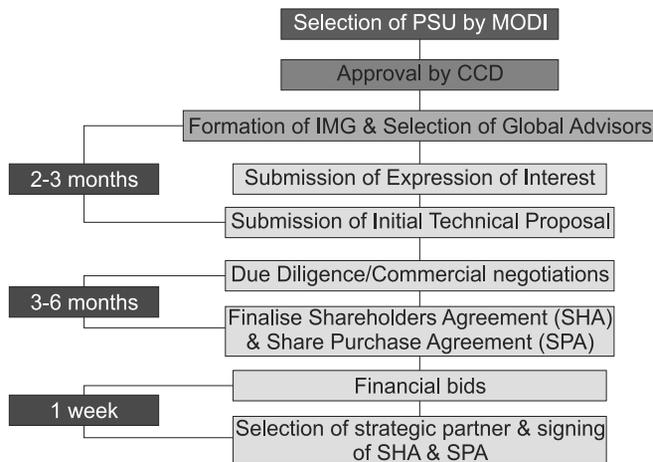


Exhibit 3 Recent global trends in the Airline Industry

Bilateral to Multilateral: The existing bilateral system envisages one-to-one agreements between the governments regarding the relative rights of the airlines flying between the two countries. However, there has been a need to move away from this bilateral framework. The first step in this direction is ‘Open Skies’ agreements to reduce the regulation of airlines operations. The existing bilateral system is likely to be inadequate to meet the challenges the industry would face in the future. This would be due to continuing restrictions in the areas of ownership and investment, as well as limitations on wet leasing and government-financed transportation. Multilateral approaches might address these issues more effectively. The next step envisaged is the movement towards multilateral or “plurilateral” agreements. A multilateral approach is one in which more than two countries decide on the regulation of air transport while a plurilateral approach is one in which blocks of countries negotiate and decide on the regulation of air transport. There have been some initiatives in this direction in Europe through the European Civil Aviation Conference (ECAC), Eurocontrol (the European air traffic control entity), and the Joint Aviation Authorities (JAA) in which almost all the Central European states participate.

Globalisation and Deregulation: There has been considerable deregulation in the airlines industry. This process has been led by the United States, which has preferred deregulation of all international aviation markets. It has started signing open skies agreements. For American carriers, this would enable greater access to other markets at reduced economic regulation allowing code-sharing, alliances and partial ownership deals between international carriers. Other countries have also seen benefits from open skies and the consequent competition as a way of boosting tourism and commerce by lowering the cost of air travel.

Alliances, JV's and Subsidiaries: A related development has been the development of global alliances. These alliances give the members an effective hub and spoke network. With smoother connections stimulating traffic, an alliance can lower a carrier's costs dramatically while allowing the carrier to cut fares and increase flight frequency. An airline participating in an alliance can do this without substantial investment in additional aircraft, airport facilities or route authority. There are currently four major global airline alliances—Star Alliance anchored by United Airlines and Lufthansa, One World with America Airlines and British Airways, Skyteam with Delta Airlines and Air France, Wings with KLM and Northwest Airlines. However, allegiance to these alliances is weak. During the past two years, many large and small airlines have shifted partnerships.

Exhibit 4 Regulatory Framework in India

1. **Regulatory Authority:** The Director General of Civil Aviation is a statutory authority responsible for laying down, implementing and monitoring standards regarding airworthiness of aircrafts, safety and operations, flight crew standards, training, etc.
2. **Operating Permit (for scheduled international air services):** The airline wishing to operate scheduled international air services has to be designated through diplomatic channels or by the aeronautical authorities of the country whose Government have concluded the Agreement with the Government of India.
3. **Maintenance approvals:** Rule 60 of the Aircraft Rules, 1937, stipulates that all Indian-registered aircrafts are required to possess a current Certificate of Airworthiness before undertaking any flight. It is, therefore, obligatory that the aircrafts are maintained as per approved maintenance schedules. Maintenance work carried out on the aircraft has to be certified in the relevant log books by appropriately licensed AMEs, approved or authorised persons who have actually performed the work. Airline operators who do not have their own facility for maintenance and certification of aircraft, aircraft components or items of equipment can get maintenance and certification performed by organisations or individuals, who are approved for the purpose. However, scheduled airlines are required to have their own maintenance facility.
4. **Schedules and Fare Approvals:** The airline has to, in accordance with the provisions of the bilateral air services agreement, obtain the approval of the competent authorities (which is the DGCA in India) of the tariffs to be charged in the agreed services operated in the specified route(s). The proposed tariffs have to be submitted to the aeronautical authorities of both the contracting parties to the bilateral agreement at least 90 days before the proposed

date of their introduction. This period can be reduced subject to the agreement of the said authorities. The airlines also have to file their proposed flight schedule with the office of the DGCA for approval, at least 30 days prior to the commencement of the agreed services. The flight schedule should contain information relating to the type of service and its frequency, the type of aircraft to be used and the flight timings. The flights can be operated only after the schedule has been approved by the DGCA.

5. **Route Rights and Air Service Agreements:** The operations of international air services to/from India are governed by inter-governmental air services agreements (ASA), under which frequency/capacity entitlements and route rights have been exchanged.

Exhibit 5 Air India's Organisation Structure

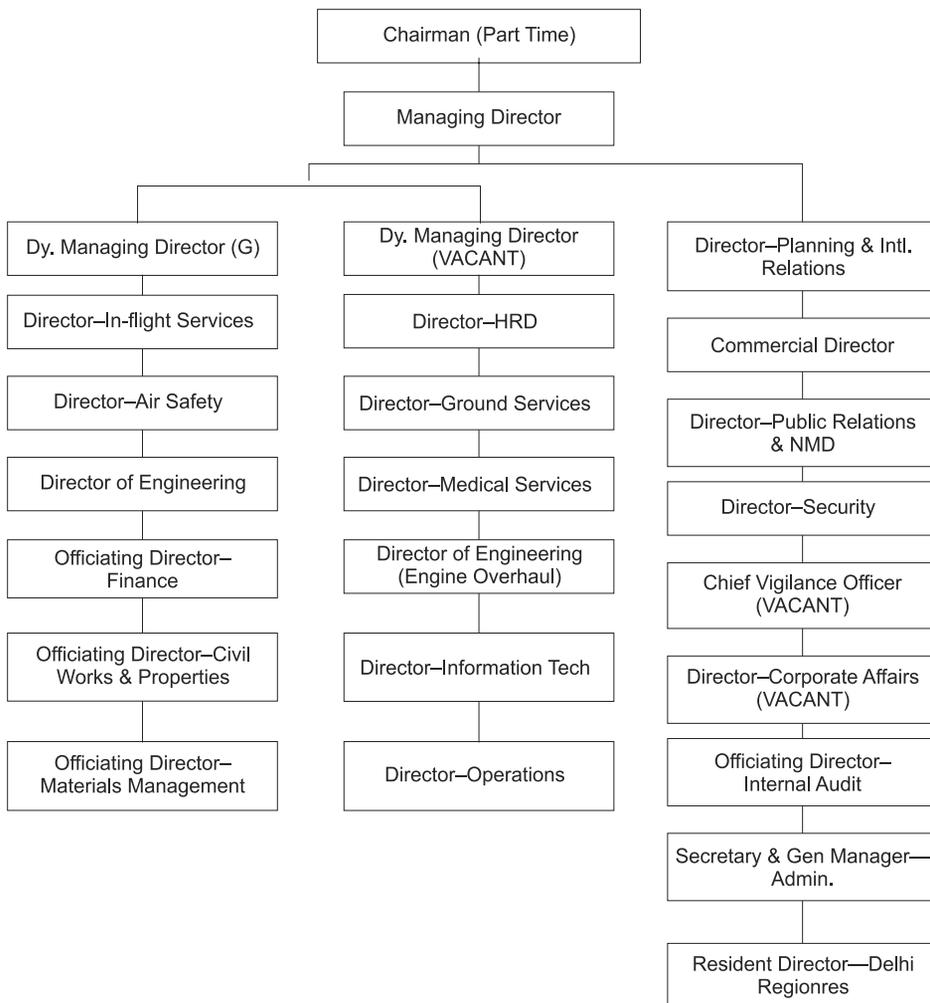


Exhibit 6 Capital Structure as of March 31, 1999

Particulars	Amount (₹ in million)
Authorised	
425,636,820 Equity Shares of ₹ 10 each	4,256.4
7,436,318 Redeemable Preference Shares	743.6
Total	5,000.0
Issued, Subscribed and Paid-up	
153,836,427 Equity Shares of ₹ 10 fully paid up	1,538.4
Reserves and Surplus	2668.6
Total Shareholders' Equity	4207.0
Secured Loans	32,489.0

Exhibit 7 Capacity of Carriers to/from India

	1997		1998		1999	
	Amount in ₹	%	Amount in ₹	%	Amount in ₹	%
AI	3,032,019	20.6%	3,055,307	19.5%	3,010,298	19.2%
AI's Code Share	53,837	0.4%	76,397	0.5%	100,478	0.6%
AI/ IC JV's	179,712	1.2%	179,712	1.1%	180,653	1.2%
Total AI	3,265,568	22.2%	3,311,416	21.1%	3,291,429	21.0%
IC	1,600,397	10.9%	1,780,670	11.4%	1,796,972	11.5%
IC's Code Share					9,844	0.1%
Total Indian Carriers	4,865,965	33.0%	5,092,086	32.5%	5,098,245	32.5%
Foreign Carriers	9,863,353	67.0%	10,577,711	67.5%	10,586,576	67.5%
Grand Total	14,729,318		15,669,797		15,684,821	

Exhibit 8 Code Share Arrangements of AI

Destination	Code Share partner
America	
Los Angeles	Singapore Airlines
Europe	
Copenhagen	Scandinavian Airlines
London	Virgin Atlantic
Paris	Air France
Vienna	Austrian Airlines
Zurich	Swissair
Africa/Asia	
Kuwait	Kuwait Airways

(Contd.)

(Exhibit 8 *Contd.*)

Destination	Code Share partner
Lagos	Bellview Airlines
Mauritius	Air Mauritius
Moscow	Aeroflot
Muscat	Gulf Air
Seoul	Asiana Airlines

Note: This chart does not include Duke Air, which is a partner with AI for Finland.

Exhibit 9 Domestic Traffic (1994–95 to 1998–99)

Years	Amount (₹ million)
1994–95	811.62
1995–96	2,610.79
1996–97	3,113.05
1997–98	6,985.64
1998–99	4,600.21

Exhibit 10 Fleet Details of Competitors

Fleet Profile of Some Key Airlines

Carrier	Total Aircraft	Average Age
American Airlines	672	11.3
Delta Airlines	602	13.3
United Airlines	609	10.8
British Airways	233	12.4
KLM	117	9.1
Lufthansa	260	
Air France	213	
Air India	23	13.3

Note: For the American Airlines, the age is as per a reclaims Ltd. Autumn, 1999 for the European carriers the age is in December 1999 a large of fleet as in July 2000

Exhibit 11 Profile of AI Markets

India/USA

This consists of a large ethnic market of professionals and software professionals and also of students. AI faces competition from national carriers of the USA, Delta and Northwest in this route. Apart from this, AI also faces indirect competition from European and Middle East airlines that operate out of their hubs, which gives them the advantage of aggregating passengers and flying with better load factors. However, AI has a distinct position as it caters mainly to the ethnic Indian population in the US. In this route, the carriage of AI has declined consistently in the last three years although the share has gone up.

India/UK

This is another important market for AI as the UK has a large concentration of people of Indian origin. This market is characterised by high volumes but low yields. The main competition to AI is from British Airways. Other European carriers like Lufthansa, Swiss Air and Gulf Carriers like Gulf Air/Kuwait/Emirates are also significant competitors because of their hub operations.

(Contd.)

(Exhibit 12 Contd.)

India/Europe:	The competition to AI in this market comes essentially from the national carriers of the respective countries. The share of AI has declined over the last three years from 14.6% in 1997 to 11.2% in 1999. This is a reflection of the tough competition that AI has had to face in the recent past from European Airlines such as Air France, Lufthansa and Swissair.
India/South East Asia	These routes have shown improvement in traffic growth primarily because of the turnaround of economies in the region. On this route, AI faces competition from the national airlines of the countries and also from IA. The main advantage that AI has over competition is that they can provide services from Mumbai to Singapore. Moreover, newer airlines like Malaysian and Garuda can operate separate operations to Kuala Lumpur and Jakarta without being linked to Singapore. AI is currently unable to offer a comparable service.
India/Far East Asia:	AI's flights to this region are matched with those of the direct competitors in the India/Japan route and the India/Hong Kong route. However, on the India/Thailand route, AI's expansion is limited due to capacity constraints. The main competitors to AI in this sector are Japan Airlines and Asiana.

Exhibit 12 Cargo Operations Revenue

Year	₹ million
1995—96	4,150.4
1996—97	3,691.3
1997—98	3,514.8
1998—99	3,686.0
1999—2000	3,910.9

Exhibit 13 Mail Operations Revenues

Year	₹ million
1995—96	111.7
1996—97	94.4
1997—98	117.3
1998—99	157
1999—2000	179.9

Exhibit 14 Charter Operations Revenues

Year	₹ million
1995—96	837.5
1996—97	911.2
1997—98	1,938.3
1998—99	2,246.1
1999—2000	985.7

Exhibit 15 Capacity and Traffic for Five Years

Operations			1995–96	1996–97	1997–98	1998–99	1999–2000
Revenue Hours Flown	No.		92,768	89,571	84,065	84,391	79,302
ASK (Sch Serv)	million		18,087.5	17,652.0	16,933.3	17,496.6	16,493.2
ASK (Total)	million		18,121.5	18,041.1	18,067.3	18,591.7	17,438.2
ATK (Sch Serv)	million		2,610.4	2,452.1	2,293.7	2,394.6	2,238.6
ATK (Total)	million		2,615.0	2,504.3	2,445.7	2,540.9	2,364.5

ASK: Available Seat Kilometres

ATK: Available Tonnes Kilometres

Traffic			1995–96	1996–97	1997–98	1998–99	1999–2000
Revenue Passenger Carried	No.		2,852,538	2,950,558	3,062,980	3,165,872	3,353,980
Freight Tonnes Carried	No.		102,758	88,962	90,689	94,128	102,432
RPK (Sch Serv)	Million		11,777.5	11,588.6	11,422.4	11,709.0	11,613.2
RPK (Total)	Million		11,783.8	11,752.1	11,955.0	12,220.1	11,869.4
RTK (Sch Serv)	Million		1,619.0	1,484.6	1,453.8	1,473.6	1,460.4
RTK (Total)	Million		1,619.6	1,499.5	1,502.5	1,520.1	1,502.1

RSK: Revenue Seat Kilometres

RTK: Revenue Tonnes Kilometres

Load factors (Sch Serv)			1995–96	1996–97	1997–98	1998–99	1999–2000
Passenger	%		65.1%	65.7%	67.5%	66.9%	70.4%
Overall	%		62.0%	60.5%	63.4%	61.5%	65.2%

Exhibit 16 Aircraft Utilisation

		<i>(Hours per aircraft per annum)</i>					
		B747-400	B747-300	B747-200	A300B4	A310-300	Total
1997–98	3778	2337	1561	2603	3388	2739	
1998–99	4269	2701	1699	2916	3566	3084	
1999–2000	4114	3061	1150	2706	3420	2882	

Exhibit 17A Comparable Transactions**Acquisition Comparables—Recent Privatisations**

Airline	P/Book Value	P/EBITDA	P/E	P/Sales
Qantas (Australia)	0.43	7.01	19.37	0.66
Air France	0.27	2.47	65.53	0.31
Lufthansa (Germany)	0.20	119.53	6.72	0.18
South African Airways	0.71	18.32	20.06	0.76
Average	0.40	36.83	27.92	0.48

Exhibit 17B Trading Multiples

(All figures in US\$)	EV	EV/EBITDAR	EV/EBIT	P/E	Load Factor
North America					
Air Canada	5,398	5.0×	11.0×	3.9×	70.3%
AMR	23,163	5.2×	15.1×	7.0×	72.6%
China Airlines	NA	7.2×	NA	12.7×	NA
Continental Airlines	14,226	5.4×	18.0×	7.4×	74.3%
Delta Airlines	14,329	3.9×	8.5×	6.2×	73.6%
Northwest Airlines	12,218	5.7×	16.6×	6.6×	77.0%
Southwest Air	16,679	8.8×	11.9×	17.1×	71.1%
United Airlines	23,153	6.7×	34.5×	18.8×	72.8%
Total North America	85,218	5.8×	16.5×	9.6×	73.1%
Europe					
Air France	6,723	4.4×	22.1×	9.1×	77.8%
Austrian Air	15,044	8.6×	23.9×	11.8×	64.8%
British Airways	16,451	8.5×	28.1×	21.1×	66.6%
Finnair	831	4.2×	23.5×	9.0×	68.8%
KLM Royal Dutch	4,297	4.2×	8.6×	11.8×	80.1%
Lufthansa	9,202	5.3×	14.5×	16.9×	73.9%
Total Europe	35,793	5.9×	20.1×	13.3×	72.0%
Global Averages		5.8×	18.2×	11.3x	72.6%

Exhibit 18 Summary of Cash Flow Projections for Air India

Year	Operating Revenues	Operating Cash Flows	Capital Expenditure	Cash Flow from Financing	Dividend Payout in Cash Flow from Financing	Fuel Costs	Interest Expense
OB 2000/01	46,654.50	5,145.27	4,033.70	-237.38	0.00	9,981.50	2,581.70
2001/02	51,761.00	2,491.12	1,698.33	-792.79	0.00	9,619.87	2,016.00
2002/03	56,699.86	10,583.78	5,180.55	-5,403.23	0.00	8,885.85	1,074.93
2003/04	68,374.85	9,569.22	52,765.75	43,196.53	0.00	9,497.99	4,164.74
2004/05	74,868.33	11,297.17	18,916.41	7,619.24	0.00	9,974.14	4,661.96
2005/06	83,944.13	15,068.54	32,523.40	17,454.86	0.00	10,815.80	5,885.17
2006/07	93,875.34	20,081.03	46,199.02	26,117.99	0.00	11,898.22	7,724.70
2007/08	101,498.56	24,039.45	33,985.30	9,945.85	0.00	12,436.02	8,325.15
2008/09	113,089.34	22,793.14	31,357.95	8,564.81	0.00	13,766.89	8,449.22
2009/10	123,931.21	25,691.63	26,875.09	2,311.14	1,127.67	15,106.79	8,416.29
2010/11	141,094.54	30,464.62	38,459.08	9,861.79	6,867.32	17,197.83	8,844.53
2011/12	144,720.28	32,396.67	23,791.04	-2,662.00	14,943.63	17,703.65	7,242.48
2012/13	148,472.21	33,130.44	23,717.18	8,557.72	27,370.99	18,224.35	5,593.31

Notes:

1. All cash flows are in Indian Rupees.
2. The current exchange rate is 1 USD = 47.65 Indian Rupees.

Exhibit 19 Potential Bidders

Air France and Delta Airlines: Air France was one of the strongest European airlines with an excellent hub in Paris. The company was aggressively looking for greater international reach. The SkyTeam alliance was one of the smallest, with a weak presence in Asia. Delta Airlines, SkyTeam's American carrier, had a negligible presence in Asia and would, therefore, also benefit greatly from a strong Asian partner. As one of the financially stronger airline carriers in the world, Air France would lead the investment with Delta providing additional support as a junior partner.

Northwest Airlines and KLM: Northwest was probably the strongest competitor for Air India because of its existing relationship and code sharing arrangements. Northwest already had an extensive presence in Asia. However, it was widely known that, at the time, Northwest was financially weaker than its rivals. KLM was a strong European carrier that would offer tremendous financial support to bolster any bid.

One World Alliance: The One World alliance was the most unknown of the potential bidders. Cathay Pacific would likely lead any investment, with potential support from British Airways, CITIC Pacific, and Swire Pacific. Cathay Pacific was one of the leading carriers in the Asia/Pacific region with strong operational reputation and obvious synergies. British Airways would likely serve as a junior

investor, but could lend substantial financial support and an extensive European network. Although not likely to participate financially, American Airlines would also offer a substantial North American network.

Star Alliance: The possibility that some of Duke Air's Star Alliance partners participated in the Air India deal existed. The most likely investors would be United Airlines and Singapore Airlines, two financially strong airlines with extensive operations in Asia. Canadian Airlines, although a smaller carrier in global terms, had strong interests and relationships in Asia and would also likely participate as a junior partner. Duke Air would take the lead in any deal and would only consider bringing new partners in with the additional shares purchased as part of the IPO.

