

HAS AMERICA'S AIRLINE INDUSTRY BECOME TOO COMPETITIVE?

ELLEN NAYLOR



I learned how world events affect travel from personal experience just before I worked in the airline industry. In early 1990, my husband and I booked a flight to London for his sister's wedding, and found it difficult to find good flights at a reasonable cost. Then the first Persian Gulf War started. Northwest Airlines asked us if we were still flying since so many people had cancelled -- we had our pick of flights and re-booked at no extra cost.

I didn't gain an appreciation for the complexities of running an airline until I joined Northwest Airlines in 1991, when the Wilson/Checchi leveraged buyout team ran the company and after their acquisition of Republic Airlines. The 1978 industry deregulation had accelerated competition and industry consolidation, and market trends included acquisitions and code sharing among airlines.

Few industries other than airlines continually run the risk of losing money due to events beyond its control, such as bad weather, war, and terrorist activities. So many things have to work right for the airline business to make money.

FORECASTING THE MACRO ENVIRONMENT.

At Northwest Airlines I worked as a competitive intelligence analyst, forecasting the domestic and global macro environment of all major U.S. carriers. From a quantitative perspective (economic factors, the competition, entry into new markets, and exit from markets), we made predictions based on past performance, business cycles, and the seasons. Having had no previous airline industry

experience, I poured over company financial details and asked a lot of "why" and "how" questions to gain an appreciation of the business.

My quantitative forecast did not account for "unpredictable events." When an airplane crashes somewhere in the world, its immediate impact has fewer people flying. But gradually traffic builds up again. Models helped us predict the effects of a crash, but each case was a little different.

The company had high fixed costs, including capital expenditures for buying and retrofitting airplanes. Fuel prices are a large and fluctuating ongoing expense. Airlines spend \$14 billion a year on new aircraft just to keep their fleet age at the current average of 12 years (CreditSights). Northwest had one of the oldest fleets of the network carriers.

The airlines are still somewhat regulated -- they must obtain approval from the U.S. Department of Transportation for landing and take-off slots for routes to new locations. When U.S. carriers request new routes to foreign destinations and foreign carriers to fly into the US, they compete with each other for this governmental approval.

All U.S. carriers report their financials to the Bureau of Transportation Statistics and I would be the first to get these numbers. Aside from the usual financials, revenue, profit and cash flow, I looked for industry and competitor trends, including increased or decreased capacity (available seat miles) by carrier and how full the airplanes flew (revenue passenger miles) and their yield (profitability per passenger mile).

Others in the company studied the micro-situation, such as drilling down to individual city pairs to explain how a carrier changed its routes over time.

COMPLICATED SCHEDULING

Scheduling is complex and highly computerized. First you want to be in the right markets, and have good hub locations if you're a Network carrier (Figure 1). Northwest Airlines' major hub locations are in Minneapolis, Detroit and Memphis. United, a key competitor, has major hubs in Chicago, Denver, and Los Angeles which are more attractive connecting and destination cities.

Second, schedulers constantly study city pairs to maximize revenue and profit for each flight by optimizing each airplane's routes with the right customer mix. For domestic flights, a plane flies to several locations and finishes each day at a maintenance location that is also optimal for take-off on the following day. Third, the airline has to fly the right size plane full of passengers, but ideally with a few empty seats. This allows space for last minute flyers, and their higher revenue per seat.

Yield management and competitive pricing are important related functions. Yield management maximizes the revenue for each seat sold. In the 1990s American Airlines was the leader for scheduling and yield management, and credited its yield management techniques for 3 to 6% of its annual revenue. In the airline industry, 3 - 6% of revenue can mean the difference between profit and loss. American Airlines has never filed for bankruptcy and is still the market leader among US airlines.

PLANES AND PEOPLE

An airline also has to deal with fleet composition and availability issues. Aircraft undergo nightly maintenance and are periodically taken out of use by a regular schedule of extensive maintenance. In addition, some planes undergo retro-fitting. The weather influences scheduling constantly. And the competition is optimizing their fleet and making efforts to increase their market share.

The airlines require many employees for operations and safety. The most visible to passengers are pilots, flight attendants and ticketing agents. Many “behind the scenes” employees keep the airline operating, such as maintenance, engineers, traffic technicians on the ground, baggage handlers, air traffic controllers, fueling, and staff functions to optimize flight operations. Most of the network carriers have union representation among flight attendants, ticketing agents, pilots and other technical workers in maintenance and engineering.

Other than pilots and high level management, most airline employees are not highly paid, and the most common way they improve their wealth has been through stock options. In the early 1990s, despite the relatively low wages, many of my fellow employees didn't want to work in any other industry. They particularly loved the travel benefits.

After 9/11 virtually all major airlines lost money -- from 2000 to 2005, U.S. airlines cumulatively lost \$35 billion. Network carriers such as American, United, and Northwest slashed costs to compete with low cost carriers such as Southwest and JetBlue (figure 1). Due to its low costs, including its fuel hedging program and its web of short-haul domestic flights, Southwest Airlines operated more efficiently and was profitable. Delta, Northwest, United, and Continental have at various times operated under Chapter 11 and US Airways has done it more than once. Among the U.S. seven largest airline

carriers, only American and Southwest Airlines have stayed financially healthy and avoided Chapter 11.

In 2005, airline employees dropped to their lowest level since 1995. At the same time, the number of passengers grew by 170 million as flying became cheaper. Since deregulation in 1978, fares have fallen by 50% in real terms. Currently some fares are rising, but

Stock options compensate for lower pay

generally at a rate less than other goods and services. The major passenger growth has been in the less profitable economy class, as companies cut back on business and first class travel.

In June 2007, the Bureau of Transportation Statistics reported that the cumulative set of 21 carriers had a system operating profit of 2.7% in the first quarter of 2007, the first profitable first quarter since 2000. This was the fourth consecutive quarter with a profit margin for the carriers. The airline's greater efficiency has kept them marginally profitable despite oil prices topping \$73 a barrel.

SOUTHWEST AIRLINES

The visionary Herb Kelleher, who co-founded and led Southwest Airlines in the 1970s before airline deregulation, has been a leadership force in the airline industry. Since its inception, Southwest Airlines focused on being the lowest cost U.S. carrier and has the most successful track record among U.S. carriers in recent times. Now, after 36 years in business, Southwest Airlines' low cost and efficiency model is being seriously challenged.

The major US carriers aggressively reduced their costs to survive in

this low margin business and many airlines benefited from bankruptcy reorganization. Now Southwest and the network carriers have little price differentiation, narrowing Southwest's traditional low-price advantage. Southwest's unit costs have risen nearly 20% over the past four years because of higher fuel prices and increased labor costs. Even with Southwest Airlines' strong balance sheet and low debt, its growth has slowed and last year its percentage of seats filled was 73%, below the industry average of 79%. Meanwhile other low cost carriers such as JetBlue and Frontier are imitating Southwest Airlines' model, and are taking away market share in certain markets.

Over the 21 years he has been with the company Gary Kelly, Southwest's CEO since 2004, has worked closely with Herb Kelleher. Kelly was responsible for the airline's fuel-hedging program and made his mark as CEO when Southwest won an auction for the then bankruptcy-protected ATA's assets. ATA has since emerged, and Southwest has code-sharing with ATA, which has generated millions of dollars in revenue for Southwest.

Southwest is employee-friendly, and Kelly refers to employees as the airline's “greatest weapon.” But the airline has one of the oldest workforces, and while Kelly says he would consider pay cuts a management failure, the company will need to make some changes to remain competitive. To offset its rising costs, Southwest implemented an in-house software product that squeezes 50 more hours of flying time out of the fleet per day. Southwest is shifting underperforming flights to more lucrative markets, and raising prices in select markets.

Southwest Airlines is starting to act more like a more traditional network carrier -- it is currently vying with American Airlines for leadership in the domestic U.S. market. Southwest may need to take more steps to look and feel like a traditional carrier, while still keeping down its costs. These include:

- Assigned seating
- Flying to international destinations
- Re-vamping the frequent flyer program
- In-flight entertainment systems
- Higher prices
- Limited or no salary raises
- Charging for in-flight services

The trends moving Southwest to take these steps indicate that the U.S. airline marketplace is almost too competitive, as the network and low cost carrier's strategies and tactics are converging. While this might keep prices low for consumers, expect future disruptive mergers among the airlines in their struggle to stay profitable.

*A 90% load factor
leaves little room
for passenger flight
rescheduling*

A TOO-BUSY PEAK SEASON

When is the last time you took a flight with empty seats? With few exceptions, most of my 2007 flights have been full. During many days this summer, load factors (the average percentage of seats sold on each flight) have approached 90%. (In 2006, the load factor rose to 80% in the U.S. and 76% globally.) While this is good for the airlines' bottom lines, it's not necessarily good for passengers. Full aircraft take longer to board, and at peak times all seats are sold (or oversold), making last minute trips difficult at any price. This also leaves the system with little ability to handle

bad weather cancellations or displaced customers. US Airways spokesman Philip Gee commented about the inability of airlines to absorb displaced customers. "We can't even pawn them off on other airlines." (Wall Street Journal 2007)

Industry low margins affect customer service quality. Airlines use technology such as kiosks for check-in at airports to replace employees. Their Internet sites reduce the role of ticketing agents as passengers book their own tickets and print boarding passes. Frequent flyer program miles are nearly impossible to redeem, unless you book trips at least 6 months in advance. If you want a decent meal on a domestic U.S. flight, you need to bring it with you. Carriers say they need to fill their planes to make a profit when oil prices are high and ticket prices low.

Since the airline industry is becoming profitable again, carriers may need to hire more employees to support the additional traffic, and improve the customer service level. Increasing evidence indicates that the system is close to bursting: too few employees are being stretched too thin. According to FlightsStats.com, June 2007 was one of the worst months in U.S. history for flight delays:

- Flight cancellations more than doubled from June 2006.
- More than 30% of the 40 carrier's flights tracked by FlightsStats.com scheduled to land in the US were late.
- The average delay for late flights was 62 minutes.
- Northwest Airlines, battling with labor unions, canceled 352 flights over one weekend, more than it canceled during the entire month of June 2006.

[FlightStats, a division of Conducive Technology compiles data

DOMESTIC U.S. AIRLINES AS OF FIRST QUARTER 2007

1. Major US Network Carriers

American
United
Delta
Continental (a)
US Airways (a)
Northwest
Alaska

(a) Continental and US Airways are merging.

2. Low Cost Carriers

America West
ATA
Frontier
AirTran
Southwest
Spirit
JetBlue

3. Regional Carriers

Comair
American Eagle
Atlantic Southeast
Sky West
Express Jet
Mesa
Pinnacle

Source: Bureau of Transportation Statistics Form 41, June 2007

from airlines, the FAA and airports, and distributes flight information to consumers and the aviation industry.]

On Friday June 8, a Federal Aviation Administration (FAA) problem, along with scattered thunderstorms in the Northeast caused a ripple effect at airports in New York, Philadelphia, Washington DC, and

Chicago—only about half of all flights took off or arrived on time. July and August are bigger travel months, so if this trend continues, I don't want to fly again until September!

Runways are often overbooked. Particularly in the Northeast, sharp increases in the number of flights result from airlines substituting more frequent flights using smaller jets for fewer flights with larger jets. Ideally, airports should expand to accommodate more flights and longer runways, but that is difficult due to community protest, particularly in densely populated neighborhoods of the Northeast.

According to the International Civil Organization, in 2006, there were over 2 billion trips on global flights, 4% higher than 2005. The International Air Transport Association (IATA) predicts that by 2010, trips will increase by another 500 million. In addition, America's domestic market for air travel—presently 750 million passengers per year—will be overtaken by both Asia's and Europe's. That does not mean America will get any less busy. "We believe we are going to have to handle between two and three times the traffic we have now," says Marion Blakey, head of the FAA. "Congestion delays are beginning to cost enormous amounts of money." (Economist 2007)

As a pioneer in the industry, the U.S. has some of the oldest airline industry infrastructure. According to the Air Transport Association, by 2016 system flights will increase from 45,000 per day to 61,000. In the past, the system expanded by adding more equipment and hiring more controllers, but now there is little ability left to expand. So the airline industry hopes to switch to a satellite-based navigation and surveillance system. This Next Generation Air Transportation System would bring together global positioning satellites (GPS) and advanced avionics and communications technology. However, the funding for such a system has not yet passed through Congress.

Wherever you look, America's airline industry and infrastructure face increasing difficulties. The American consumer expects flights to remain cheap, and the airlines in their quest for profitability and full flights have kept prices low, perhaps artificially low. To make money, airlines have cut back on amenities previously included in the price such as food and in-flight entertainment. They have also cut back on employee headcount while scheduling more flights using smaller low-cost jets.

According to FlightStats, the 40 airlines it tracks scheduled 14% more flights in June 2007 as compared to June 2006 and that number does not include the increased flights by corporate jets and cargo carriers. Meanwhile the FAA operates America's air-traffic-control system, but doesn't regulate flight scheduling, and says it is doing the best it can with antiquated air-traffic-control equipment. Airlines say the FAA isn't handling enough traffic to satisfy America's growing traffic demand, while the FAA contends that airlines have created trouble for themselves by flooding key airports with more flights.

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Ellen Naylor is president of Business Intelligence Source, Inc. She has 25 years of marketing and sales competitive intelligence experience, including at Verizon, where she initiated a competitive intelligence department and built a CI process that included sales. Ellen conducted financial competitive analysis and economic forecasting while at Northwest Airlines. She has held leadership positions at SCIP on the board of directors and with the Minnesota and Rocky Mountain chapters. In 1995 she was honored with the Catalyst Award, and in 2006 she was named a SCIP Fellow. Ellen earned her MBA at the University of Virginia's Colgate Darden School. Contact Ellen at answers@thebisource.com.