The Global Airline Industry

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The global airline industry was the focus of a great deal of interest at the 1993 Transportation Research Board Annual Meeting. At this time, a decision by the incoming Clinton Administration was awaited on whether and under what conditions the British Airways (BA) investment in USAir would be allowed. Other U.S. carriers had lobbied against approval. Several sessions at the meeting examined the implications of globalization for the airline industry and the consumers of its services. Most observers expect that globalization will lead to fewer, larger airlines competing worldwide.

The following is a discussion of (a) trends in airline globalization and why airlines are seeking to link up with those from other countries; (b) the legal, political, and regulatory environment for airline services that will condition how globalization is likely to affect industry structure and airline competition worldwide; and (c) some of the alliances forged by airlines in 1992.

History of Globalization

For most of its history, the airline industry has operated in a regulatory regime that shielded it from competition. Many countries had only one or two airlines that often served separate markets and did not compete. Even in the United States, which had a number of domestic airlines, route and rate regulation were used to limit competition. International air services operated under a system of bilateral air service agreements that limited service between the two countries to the flag carrier of each state. Capacity limits, revenue pools, and the fare-approval process did not promote competition. Almost every country had its own airline, no matter how small the carrier or its level of efficiency. As a result, scheduled air services were characterized by high prices and inefficient producers. Existing competition was provided by charter airlines that focused on the discretionary travel market.

U.S. Deregulation

In the 1970s the United States moved to increase competition in airline services. It deregulated its domestic airline market but limited competition to U.S. carriers. The United States also promoted a liberal environment for international air services by negotiating "open skies" agreements with other states through revision of bilateral air service agreements. Some success was achieved in obtaining liberal air service agreements with other countries.

Little evidence exists for economies of scale in airline service beyond some moderate threshold, so larger carriers were not necessarily the low-cost producers of air services. After deregulation, a number of new airlines entered the U.S. market and sought to compete with incumbent carriers by taking advantage of their lower operating costs to offer low-priced airline services. Existing carriers sought to defend their positions through mergers and acquisitions, the creation of hub-and-spoke networks, control of distribution through computer reservation systems, and building passenger loyalty through Frequent Flyer programs. The large incumbent carriers were also able to meet new entrant prices in the markets where they competed directly through yield management or selective discounts in which some seats were offered at or below the bargain prices charged by the new entrant competitors.

The result was that, although there were no economies of scale in the production of airline services, significant economies accrued to the operators of large networks centered around airline hubs. These network economies are known as economies of scope: the greater the number of markets served in a network, the lower the cost of serving each. Most new entrants were forced either to merge with larger carriers or fall by the wayside because they were not able to sustain profitable operations in competition with the incumbent carriers.

Significant consolidation took place in the U.S. airline industry throughout the 1980s, under which only the largest carriers succeeded—or those that developed a defensible niche service such as Southwest Airlines. Deregulation in the United States has resulted in consolidation, greater cost control, and increased productivity, the keys to survival without the protective umbrella of economic regulation.

European Liberalization

In the 1980s as part of the development of the single European Community (EC) market, a process was implemented to allow more airline competition within the EC. The EC passed legislation allowing any community carrier to provide airline service between EC states. This did not include the right for an EC carrier to engage in cabotage (a foreign carrier providing domestic airline services) within another EC country, a change that was deferred until the late 1990s.

Before this liberalization, European airlines were still afforded protection from market forces because intra-European air service between countries was operated under the bilateral regime, and was characterized by generally high costs and low productivity. Many European carriers were

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government owned and protected even more from the adverse effects of market forces. However, in the early 1980s, some carriers and governments, seeing the approach of increased competition within Europe, began to realize that they would have to take action to prepare for it. BA was privatized and began a dramatic turnaround by improving the quality of services for passengers and increasing productivity. BA also acquired its largest competitor in the United Kingdom (U.K.), British Caledonian, to strengthen its position within the U.K. Other carriers, such as Air France and Lufthansa, acted later but also sought to consolidate their position in their home market. However, perhaps because of government ownership, they have not been able to control costs and increase productivity to the same degree as BA and the U.S. carriers.

Other Developments

The influence of the U.S. open skies policies was limited to those markets in which a liberal agreement with another country could be achieved. This led to increased competition on the North Atlantic. Some Asian states such as Singapore and Korea also sought liberal air service agreements with the United States because they wanted to provide a growth environment for their air carriers that offered high levels of service and low labor costs. These trends were indicative of a more liberal and competitive international airline environment.

In the mid-1980s, a number of airlines took the position that further consolidation of the industry was an inevitable outcome of a liberalized international market for airline services. They noted what happened in the United States under deregulation—the emergence of a few very large carriers with competitive costs and high productivity by world airline standards. They also saw that being part of a large airline network was a key to survival. The conventional wisdom became that the airlines that would prosper in the next century would be part of a worldwide network offering services in all markets of any importance. Thus the global airline concept was born, the advantage of which was that it could serve passengers from origin to destination and never turn them over to a competitor.

Legal, Political, and Regulatory Environment of Airline Globalization

International air services are governed by bilateral agreements between states, an arrangement established by the Chicago Convention at the close of World War II. The beneficiary of a bilateral agreement executed by a state must be a citizen of that state. Thus, if a foreign carrier acquired a majority interest in a U.S. carrier, that carrier could no longer make use of rights obtained by the United States through a bilateral agreement. For this reason, nearly all countries prohibit foreign carriers from acquiring a controlling interest in their carriers. A number of other issues that arise in the context of foreign ownership of U.S. airlines have been examined in detail in a recent study (*1*). Most countries also prohibit cabotage.

Significant changes in the bilateral framework for international air services will be required for truly global airlines to materialize, in which those carriers under single ownership establish a worldwide route network. One important precondition in areas such as the EC and North America will be to establish multilateral air service agreements under which the rights to serve blocs of countries are negotiated and any country belonging to the group can make use of the benefits obtained.

A number of political issues will affect airline globalization. For example, in many countries the flag carrier is owned by the government. Although Air France has been able to acquire interests in Sabena of Belgium and CSA of Czechoslovakia, which are government owned, it is not likely that countries with private-sector airlines will allow a government-owned carrier from another country to assume an ownership position.

There are also cases in which a country will not allow a foreign carrier to have a stake in one of its carriers if it believes that this would put its other carriers at a serious disadvantage. For example, the BA-USAir deal in its original form faced opposition because U.S. carriers convinced the U.S. government that BA enjoyed a protected position at London's Heathrow Airport and from the services it offered from there to elsewhere in the world. Although the big three U.S. carriers (American, Delta, and United) have strong positions in the United States, they argued that BA could develop unacceptable levels of market power on both sides of the Atlantic. In addition, they believed that once BA had achieved its goals in the United States, little leverage would be left to encourage further liberalization by the British government.

Regulatory standards are also an impediment to globalization. Currently the airline safety standards set by individual countries vary considerably. Thus, even if a global carrier could be formed, it might have to operate parts of its network according to different safety standards. This would diminish potential cost savings to a global carrier as it could not fully integrate its services. Harmonization of safety regulations is an important antecedent to airline globalization. Although many recognize the benefits of establishing common safety regulations for airlines, it is difficult to get national authorities to take the steps necessary to do so as they view this as diminishing their independence. This can be difficult to overcome because politicians may be reluctant to overrule their own aviation safety experts.

Progress Toward Globalization

During the 1980s many U.S. and foreign carriers began to lay the groundwork for globalization by entering into marketing alliances and linking their computer reservation systems and Frequent Flyer plans. A few carriers began implementing strategic alliances by acquiring ownership positions in other carriers.

One of the most significant airline combinations, that of BA and USAir, became embroiled in the 1992 U.S. presidential election debate, with BA and USAir lobbying hard to have the agreement approved by the U.S. Department of Transportation. This deal was strongly opposed by the big three U.S. passenger airlines, which argued that the British government should grant U.S. carriers greater access to London and provide "beyond rights" (the right to carry traffic from London to other countries in Europe and elsewhere in the world) in order to ensure that BA was not accorded a dominant position on the North Atlantic market. BA withdrew its original offer for USAir in December but recently announced another transaction involving USAir.

In addition to the BA-USAir transaction, a number of other foreign carriers have investments in U.S. carriers. Air Canada recently made an investment in Continental, which already had an arrangement with Scandinavian Airlines System (SAS). However, SAS wrote off its investment when Continental filed for protection under Chapter 11 of the Bankruptcy Code. Japan Airlines made a minority investment in Hawaiian Airlines. A number of other marketing agreements between U.S. and foreign carriers have been made, such as that between United and BA. This agreement is likely to be significantly weakened if the BA-USAir transaction takes place.

The most significant step toward globalization taken by a U.S. carrier has been the agreement between Northwest and KLM to operate under a single brand and to merge or coordinate many of their activities. For example, Northwest will operate KLM's North Atlantic service to and from the United States. The two carriers will still have to operate as separate entities because of different safety standards in each country. KLM has made significant investments in Northwest, which had become desperate for capital investment after a leveraged buyout.

In addition to USAir, BA has acquired a stake in Qantas Airways, the Australian international carrier. It has acquired Dan Air of the U.K. and TAT of France, both regional carriers. It has established Air Russia, which would operate international services from Moscow, and Deutsche BA, which replaced the internal service it had operated from Berlin since World War II and had been facing a shutdown after German unification. Clearly, BA sees globalization as the future state of the industry and wants to be the lead carrier in one of the surviving global airline networks. It is establishing footholds in theRussian Republic and the new independent states, North America, and Europe, along with strengthening its presence in the EC.

Apart from Delta's exchange of shares with Swissair and Singapore Airlines, the only other investment by the big three has been that by American in Canadian Airlines International. With the dismal earnings of the industry during the last few years, U.S. carriers may now be concentrating more on restoring profitability than on overseas expansion. Lufthansa and United recently announced a code-sharing agreement, a form of marketing alliance not involving investment by one carrier in the other.

PUSKAR

USAir and British Airways: transatlantic partners.

Globalization: Wave of the Future?

At the approach of the next century, airlines are establishing strategic alliances with carriers from other countries. Clearly, many see globalization as the wave of the future. They believe that the winners will be the carriers that can offer passengers seamless travel from origin to destination. Globalization also offers the opportunity to form larger airline networks and take advantage of economies of scope to reduce costs. In addition, it can provide access to markets that a carrier would otherwise be unable to serve. One of the goals in the BA-USAir transaction is to provide BA with access to the U.S. domestic market. BA believes that it must have access to the many U.S. cities that are not now BA gateways in order to effectively compete with the big three U.S. carriers. Market access is therefore an important driving force behind airline globalization.

What does globalization hold for consumers of airline services? If it results in a liberalized environment for international air services (and it must, or globalization will not take place), then it could offer consumers more travel choices and should promote competition; for example, if BA could serve the New York–Paris market nonstop. With few exceptions, most international airline markets suffer from too little competition. Even if only five or ten global airline combinations emerge that can serve most of the major international markets, the level of competition is likely to increase—to the benefit of customers. It is clear that many other industries are engaged in global competition. For example, the automobile industry now competes on a global scale, with Japanese companies manufacturing in the United States and Europe and U.S. and European companies manufacturing in other countries. There appears to be no technological reason why the airline industry cannot do the same.

What other public policy issues arise from globalization? Clearly safety and security of air travel must be maintained and will still be subject to national and international laws and land regulation. Governments can never abdicate responsibility in these areas and safety and security will be provided more efficiently if standards are harmonized among countries. The cost and quality of airline service are also important both to a country's competitiveness and to the mobility of its citizens. How antitrust will be enforced in a global airline industry must also be addressed.

Airlines also play a role in national defense. The United States activated the Civil Reserve Air Fleet in the Gulf War. Israel relies on El Al for strategic airlift. El Al, for example, played an important resupply role in the Six-Day War.

There are also concerns about employment. Traditionally, airlines have been a source of high-quality employment. Countries will be reluctant to support globalization if they believe it will result in the loss of these jobs to other countries.

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Obituary

John S. Durham
1945–1993

John S. Durham, Operations Research Analyst with the Federal Transit Administration (FTA), died in August as a result of an automobile accident.

Actively involved with the Transportation Research Board, Durham had a key role in the recent successful implementation of the Transit Cooperative Research Program (TCRP). He was Liaison Representative to the TCRP Project Panel on Reliability-Based Procedures for Maintenance of Transit Vehicles.

A U.S. Department of Transportation (DOT) employee for more than 18 years, Durham had served in the Division of the Office of Mobility Enhancement since 1979. From 1980 to 1981 he was Acting Executive Assistant to the Associate Administrator and Director of Support Staff. He was also a member of the FTA Performance Review Team and the Secretary's National Transportation Policy Team. During his time with DOT he was the recipient of many achievement and performance awards.


John Durham

Durham attended Utah State University and graduated from the University of North Carolina. He earned a master's degree in business administration from the University of Maryland.

Durham has been posthumously nominated by Lawrence L. Schulman, DOT's Associate Administrator for Technical Assistance and Safety, to receive the DOT Secretary's Award for Outstanding Community Service in recognition of his many hours of commitment and dedication to the young people of Montgomery County, Maryland.

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Finally, there is the issue of a level playing field. If countries believe that someone is trying to tilt the playing field in favor of their own carriers, it is not likely that they will modify their legal and regulatory framework to facilitate globalization.

Care must be taken in globalization to see that some equality of opportunity is provided to assure that infrastructure shortages or other market access problems do not enfranchise one global airline at the expense of others. Such market dominance would harm competition and consumer interests. Notwithstanding the potential benefits of globalization, a strategic alliance may not be in the best interest of all airlines. Those carriers developing a defensible market niche may be better off pursuing that opportunity rather than joining a global network. It is also clear that there are still significant legal, political, and regulatory hurdles to overcome before there is a truly global airline industry.

The United States faces a particular dilemma with airline globalization. The U.S. domestic market is so large that it cannot enter into a bilateral arrangement based on equal access that would provide U.S. carriers opportunities equivalent to those being given to the foreign carrier. U.S. carriers need global or regional access to take advantage of the efficiency gains and marketing clout that they have achieved. Yet the United States seems to be at the forefront in pressing for further liberalization of world airline markets. It may well be that airlines are viewed as a mature industry in the United States, where competition is important to providing consumers with the most value for money in airline services. If more countries adopt this view, the global airline industry will become a reality.

Reference

1. *Airline Competition: Impact of Changing Foreign Investment and Control Restrictions on U.S. Airlines.* General Accounting Office, GAO/RCED-93-7, Dec. 1992.

Updating the 1985 Highway Capacity Manual
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2. Total delay is defined as the difference between the vehicle's travel time through the intersection when it is stopped or slowed, and the vehicle's travel time through the intersection if it had not been stopped or slowed. Thus, total delay on an intersection approach includes stopped delay. It also includes the delay time when vehicles move up in a queue and deceleration and acceleration delay times.

Both stopped delay and total delay are expressed in units of seconds per vehicle. Without additional modifiers, the terms stopped delay and total delay refer to delays associated with a single lane group. Adding the word approach (namely, approach stopped delay or approach total delay) causes the terms to refer to weighted average delays per vehicle associated with a single intersection approach. Similarly, adding the word intersection (namely, intersection stopped delay or intersection total delay) causes the terms to refer to the weighted average delays per vehicle of all vehicles traveling through the intersection from all approaches.

The updated versions of HCM Chapters 9, 10, and 11 use the same definitions for stopped and total delay so that delay comparisons can be made at intersections that are controlled by traffic signals and stop signs.