The Policies and Problems of Transatlantic Aviation Relations

Aaron Robinson

Economics 290

Professor Tammy Feldman

November 20, 2006

Despite the highly international nature of air transport, the airline industry remains one of the most insulated from competition outside of a country's borders. Because airlines developed as instruments of a country's foreign policy, bilateral networks of treaties developed formed after end of World War II. The Convention on International Civil Aviation of 1944, more commonly known as the Chicago Convention, was held at the invitation of the Roosevelt Administration in the hope of fostering an "open skies" civil aviation system. Of course, the U.S. would be the greatest beneficiary, as its airlines (like most industries) were in excellent shape compared to those in Europe, and American manufacturers supplied the vast majority of the world's civilian aircraft at the time. The Soviet Union was resistant to internationalization though, insisting on insulating themselves from the West and offering only a limited number of connecting gateways. The European powers, fearing American domination of the skies, were unwilling to accede to the American position, and insisted on the bilateral regime that has existed since.

The Chicago Convention established the International Civil Aviation Organization (ICAO), a regulatory body under the United Nations, and formalized the five "freedoms" of the air:[1]

-First Freedom: the right to fly over a country without stopping[2]

-Second Freedom: the right to land in another country to refuel or in case of emergency[3]

-Third Freedom: the right to carry traffic from the home country to another country

[1] Only the first two were agreed upon at Chicago; the remainder had to be negotiated in bilateral agreements.
[2] Prior to World War II the first freedom did not exist; nations had full sovereignty over the air above their lands. This freedom was not recognized by the Soviet Union or China until recent years. To this day, Russia still requires airlines to pay for the right to fly over Siberia, a major challenge to the first freedom. Russia has agreed to eliminate these charges by 2013 as part of its entry into the WTO, but has not yet taken any steps to remove them. A number of other countries still resist the most basic freedom: numerous African states are still technically non-signatories because of their opposition to South Africa's apartheid government, which required South African Airways to fly to Europe via Cape Verde.
[3] Because of the Soviet unwillingness to allow overflights, most services between Europe and Asia used Anchorage as a transit point. Likewise, Canada's Gander and Goose Bay and Ireland's Shannon were also frequent refueling stops in the early days of transatlantic flight.

-Fourth Freedom: the right to carry traffic from another country to the home country

-Fifth Freedom: the right to carry traffic between two foreign countries as an extension of a flight from the home country[4]

In addition, there are three supplementary freedoms that are not officially recognized by treaty:

-Sixth Freedom: the right to carry traffic between two foreign countries via one's own country[5]

-Seventh Freedom: the right to carry traffic between two foreign countries without originating in the home country

-Eighth Freedom: the right to carry traffic within another country as an extension of a flight from the home country (consecutive cabotage)

-Ninth Freedom: the right to carry traffic within another country without originating in the home country (stand alone cabotage)[6]

Government-supported airlines were considered critical to serve national defense, support routes that would not otherwise be served, connect a colonial power with its overseas dominions,[7] develop overseas trade, and promote development in other industries.[8] National defense requires a substantial amount of logistical support, and with the advent of air transport, the speed of the airplane relative to land or sea has made airlines increasingly valuable for airlift

[4] Fifth freedom rights also require approval of the other foreign countries involved

[5] The sixth freedom is merely an extension of the third and fourth freedoms, and generally accepted de facto.

[6] Both kinds of cabotage are allowed in extremely rare cases. In one famous example of stand alone cabotage, Air France, British Airways, and Pan American had exclusive rights to fly from West Germany to West Berlin until German reunification.

[7] Sabena's name reflects the Belgian government's intentions: Société Anonyme Belge d'Exploitation de la Navigation Aérienne.

[8] For a full treatment of economic justifications for airlines as government enterprises, see Robert L. Thornton's "Governments and Airlines," *International Organization*, Vol. 25, No. 3, Transnational Relations and World Politics.

duties in times of emergency or war.[9] In peacetime, airlines are also needed to serve remote domestic routes unattractive to their private counterparts.[10] Airlines are also an important part of ensuring the development of related national industries, especially in the powerplant and airframe industries. For instance, British Airways buys mostly Rolls-Royce engines,[11] KLM has flown Fokker aircraft since the 1920s, and Airbus' traditional best customers are Air France and Lufthansa.[12] "Flying the flag" by serving foreign countries, friendly or foe, was also considered an important objective of flag carriers.[13] Because of the enormous technical and financial burden of operating an airline and the need to prevent "wasteful duplication of resources," European nations tended to have a single airline (wholly owned by the government) to serve its international routes.[14] Bilateral negotiations also tended to be combined with other trade issues such as tariffs or quotas. Finally, one often overlooked benefit of airlines has been their ability to assist the foreign exchange market in equalizing trade flows.[15]

After the Chicago Convention, rights between the two primary aviation players, the U.S. and the U.K., were still not finalized, and so a meeting in Bermuda in February 1946 led to a compromise between "the Americans who wanted everything to be free and the British who

---

[9] This is also the case in the U.S., where major carriers designate their larger aircraft as being available for the Civil Reserve Air Fleet.

[10] While present examples are few (one current case is Olympic Airways and numerous Aegean islands), postwar examples were numerous and tended to be connecting overseas territories with the homeland.

[11] BEA, a predecessor of British Airways, bought exclusively British-manufactured aircraft.

[12] Russia levies import taxes in excess of 40% on its airlines for Western-built aircraft. The best example is still the Anglo-French cooperation in producing Concorde. Only fourteen of the aircraft, with approximately 100 seats each, were flown commercially despite development costs of over £1.13 billion, a figure equal to $9.39 billion in today's terms, or over $670 million per airframe. Compare this to the $232 million list price of a 747-400, which holds over 400 passengers.

[13] One Cold War example was Aeroflot's opening of a Moscow-Havana route, two countries unconnected except in ideology.

[14] The U.K., however, had British European Airways (BEA) serving the continent and the British Overseas Airways Corporation (BOAC) serving longhaul routes. Conversely, there are examples of a few multinational airlines, notably Scandinavian Air System (Denmark, Norway, and Sweden) and Gulf Air (Bahrain, Oman, and until recently, the U.A.E.'s Abu Dhabi).

[15] The advantage is more acute for airlines with a smaller home market, such as KLM Royal Dutch Airlines and Singapore Airlines. BOAC was often joked as standing for "Bring Over American Cash."

wanted it controlled," wrote Sir William Hildred, one of the negotiators on the British side. Fifth freedom rights were exchanged between the two countries because aircraft range limitations required numerous stopovers to reach distant destinations, but such rights were difficult to obtain and are rarely granted today. Without fifth freedom rights, many politically important routes would have been economically unsustainable.[16]

What is now known as the Bermuda I Agreement had two important consequences: first, it laid down the prototype for the majority of bilateral agreements to follow, and second, it established a means to fix fares across borders. Traditional bilateral treaties modeled after Bermuda I restrict the airlines that can fly between two countries,[17] the cities and routes that can be served, the fares charged,[18] and the frequency and capacity offered.[19] The purpose of these restrictions was to prevent dominance by one nation's airline over another, but had the additional effect of restraining competition and adversely affecting service levels.

The most contentious issue at Bermuda was over setting fares. The U.S., in accordance with antitrust law, was not willing to abide by any price fixing. However, the Europeans had recently met in Havana and had agreed to resurrect IATA (now called the International Air Transport Association), which would perform a role similar to its prewar duties: regulating fares (through government negotiation) and performing as the clearinghouse for international airline revenue. While tacitly encouraging cartels under an umbrella of promoting "safe, regular, and

[16] In this case, the relevant authorities were for a second BOAC route to Australia (via Hawaii in addition to their service through Singapore, India, and the Middle East) and Pan American's round-the-world service. An important exception from this era that survives to this day was Japan's fifth freedom rights granted at end of World War II to Northwest Orient (now Northwest Airlines) and Pan American (rights since sold to United Airlines) to transport Japan-originating passengers onward to other Asian countries as extensions of flights from the U.S., and vice versa. Fifth freedom rights today are generally not exercised, as carriers have found it more effective to enter codeshare agreements with foreign airlines and cooperate with them rather than compete against them.

[17] Although the designated airline would typically be just a country's flag carrier, they must also be primarily owned and controlled by citizens of the country.

[18] In the most restrictive of treaties, revenue is pooled between both countries and split evenly or according to a predetermined formula.

[19] Frequency refers to the number of flights on a route, whereas capacity refers to the number of seats. Both are also often allocated, as with revenue, evenly or via a formula.

economical air transport for the benefit of the peoples of the world," European governments approved it as an add-on to the Chicago regime. At Bermuda, the U.S. reluctantly agreed to allow IATA's fare structure,[20] but continued to criticize it as a restraint of the competitive market. IATA also performed the difficult role of coordination: a passenger could fly to a distant destination using multiple airlines, and yet he would need only a single ticket, find that his bags were transferred automatically, and experience a coordinated schedule and consistent service standards, with each airline receiving payment in their own currency.

Following the deregulation of the U.S. airline industry in 1978, the U.S. sought to spread liberalization to the international arena. This goal was part of the incoming Carter Administration's pledge to increase consumer welfare through the reduction of regulatory controls. A presidential statement on international air transport negotiations the same year announced that the U.S. would renegotiate its bilateral agreements to give "maximum consumer benefits...through the preservation and extension of competition in a *fair market place* [emphasis mine]." Treaty renegotiation would allow for pricing freedom, elimination of capacity, frequency, and routing restrictions,[21] expansion of U.S. airlines abroad,[22] and an improvement in service quality.

While deregulation's supporters could point to the success of California's Pacific Southwest Airlines and Texas-based Southwest Airlines (both operated solely within their respective states prior to 1978), no one had tried breaking the international cartel prior to Britain's Freddie Laker. Laker founded Laker Airways in 1966 as a charter airline and began

[20] The American Civil Aeronautics Board was not dissimilar from the international system; it set fares and approved route applications for specific airlines.
[21] This would also include the ability to designate additional U.S. gateways and foreign destinations.
[22] Up to this point, Pan Am and TWA overwhelmingly controlled U.S. transatlantic rights, while Northwest Orient and Pan Am controlled the transpacific market. Across the Atlantic, U.S. airline market share had eroded from an overwhelmingly dominant postwar position to just 40%.

flying across the Atlantic three years later. The U.S.-U.K. market, by far the busiest transatlantic market then (two-thirds of transatlantic passengers at this time flew through London) and now, was effectively an oligopoly of British Airways, British Caledonian,[23] Pan Am, and TWA. Laker's airline, dubbed the Skytrain, focused on no-frills service and last minute booking with rock-bottom fares. While Laker received a license for scheduled service from British authorities in 1971, the U.S. Civil Aeronautics Board delayed and eventually denied the request. Following the oil crisis of the 1970s and the expensive introduction of the 747, Pan Am and TWA were both in severe financial distress. The U.S. government allowed airlines to coordinate capacity reductions domestically and abroad to reduce losses. In the case of the U.K., the four airlines agreed to a reduced schedule, but under the condition that outsiders (namely Laker) not be allowed to enter the market. Shortly thereafter, the Labour Government also denied Laker's license. Eventually Skytrain took off from London Gatwick to New York in June 1977 with DC-10s after the oil crisis had subsided, British Caledonian had withdrawn its objections,[24] and deregulation in the U.S. was imminent. Even though the incumbents matched Laker's fares, Skytrain was a success: the first year's profits were £2 million and the airline served as a model example of the benefits that deregulation offered. The newly knighted Laker announced plans for further expansion, but the second oil crisis hit in 1979, depressing demand for air travel and the value of the pound. Worse, the crash of an American DC-10 that May led to the type's grounding for six weeks. By 1981, Laker's deteriorating financial status was apparent, and British Airways and Pan Am had asked the British government for approval to lower fares. Whether the move was predatory or not, Skytrain was in trouble. An application to enter IATA was denied, but

[23] While British Airways was the British government's chosen instrument of the public sector, British Caledonian was the chosen instrument of the private sector, receiving preference over other privately owned airlines.
[24] British Caledonian feared that Laker would undermine the government's policy preference for British Caledonian and in the long run, make it more difficult to compete with British Airways.

McDonnell Douglas and General Electric[25] agreed to convert some of Laker's debt into ownership stakes and cash injections. European airlines, led by British Caledonian,[26] informed both of their displeasure with the arrangements, forcing GE to drop their support. McDonnell Douglas maintained a neutral appearance but delayed its cash injection. By then Skytrain had already begun liquidating, and was at the time the largest in British history. Laker sued for $350 million in compensatory damages, alleging American antitrust violations. Under antitrust laws, this sum could be tripled, making it one of the biggest antitrust suits in history. He eventually settled for $100 million, enough to pay off his debts.

The American push for renegotiated bilaterals was echoed by other countries that would benefit from open skies agreements, notably the Netherlands and Singapore,[27] but was strongly resisted everywhere else. Because of the immense size of the U.S. market, foreign countries were keen to negotiate for access to more U.S. gateways for their airlines. In exchange the U.S. insisted on the broader freedoms described earlier. Because the Netherlands offered a small market but a disproportionately large airline industry,[28] the Netherlands-U.S. bilateral became in March 1978 the first to be renegotiated, and set the standard for liberalized agreements. Key features included an increased number of gateways on both ends (unlimited U.S. gateway rights for American carriers, but still a limited number for foreign carriers), and extensive fifth freedom rights (again, in favor of the U.S.), multiple rather than single airline designation, and double fare disapproval (i.e., fares were valid unless both countries disapproved, rather than requiring double approval as before).

---

[25] General Electric supplied the engines for Skytrain's DC-10s.

[26] The list was no less extensive than British Airways, British Caledonian, KLM, Lufthansa, Sabena, SAS, Swissair, and UTA (France).

[27] Both countries possess highly successful global airlines despite their small home markets. KLM and Singapore Airlines carried 22 million and 17 passengers in 2005, despite national populations of 16 million and 4 million, respectively.

[28] No doubt the Netherlands' long-standing tradition as global traders led to their strong airline development and their willingness to liberalize.

Because of the importance of Amsterdam as a gateway to both Belgium and West Germany, these countries recognized that failure to renegotiate would result in traffic being diverted away from their own airlines. Therefore, the new U.S. agreements with the Belgians and West Germans were structured after the U.S.-Netherlands model. Eventually the pressure on other countries was multiplied, leading to the majority of the transatlantic market being liberalized by the end of the 1980s.

In the intra-European market, the free market attitude of the Thatcher Government led the U.K. to push for liberalization in Europe. June 1984 saw a new Netherlands-U.K. treaty, which became the model for new European bilaterals: airlines were free to fly any routes between the two countries, carrier designation was expanded to any number of airlines, capacity and frequency were unrestricted, revenue pooling was eliminated, and fares shifted from double approval to double disapproval, but fifth freedom routes remained rare.[29] Near the end of this period, liberalization packages enacted by the European Council of Ministers in December 1987 and June 1990 had the effect of further liberalizing the European skies. In particular, the first package (1987) acknowledged that the Treaty of Rome's competition articles applied to air transport, requiring the cartel system in place to be removed except where exemptions were granted, and increased airlines' price flexibility to specific bands rather than set levels and removed capacity parity. The second package (1990) furthered the first package's price flexibility and opened up third, fourth, and fifth freedoms to all airlines in the European Community. Although the first and second packages were mostly reiterating the policies of the renegotiated bilaterals, the third package, adopted in July 1992 and effective January 1993, fully opened up pricing and formed the European Common Aviation Area, opening up the skies of the

[29] Nationalistic tendencies tend to preclude fifth freedom rights from being particularly desirable, as Europeans remain loyal to their country's home airlines.

European Union (plus Iceland, Liechtenstein, Norway, and Switzerland) and allowing any airline within those countries to operate freely within the area, whether on international or domestic routes. Yet this international freedom is limited to within the European Common Aviation Area; services to non-signatories are still governed by bilateral treaties with those countries. While these new privileges have remained largely unused by national airlines, newer carriers have eagerly taken advantage of the new 'open skies' regime and established bases across Europe, becoming pan-European airlines in an industry previously divided across national borders.

The liberalization of the 1980s also spurred the privatization of Europe's flag carriers.[30] The competitive arena required competitive airlines, which the flag carriers of Europe were usually not. The general political consensus in Europe was that removing the vestiges of civil servitude would make airlines more efficient and improve service quality while reducing customer costs.[31] This trend was reinforced by the collapse of the centrally planned economies of Eastern Europe and the Soviet Union. With the U.K. leading the way in this realm as well, Thatcher's privatization of British Airways in 1986 was so successful that CEO Colin Marshall, like Laker, was knighted soon after.[32] Privatization was also necessary to increase airlines' capital, since most expansion had been financed through debt. Undercapitalization has been a major argument for recent state aid for airlines.[33] The European Commission also determined that (in accordance with the Treaty of Rome) in the interests of minimizing distortions in airline

[30] Although the U.S. heavily subsidized airlines in their early years through mail contracts and favored certain carriers on the international stage, the U.S. does not have a history of government ownership of airlines.
[31] BA (British Airways), formed through the merger of BEA and BOAC, was frequently joked as standing for "Bloody Awful."
[32] In general, the larger and more successful the national airline in Europe, the lower the government's ownership stake. Government shares among the largest were the following in 2005: Air France (18.6%), Alitalia (62.4%), Austrian (0%), British Airways (0%), Finnair (58.4%), KLM (25%), Lufthansa (0%), SAS (50%), Swiss (32.6%), Transit Air Portugal (100%).
[33] The other main argument in favor of state aid is that of compensation for past or present penalties, such as government interference such as requiring uneconomic services or staff pressures. While Olympic Airways is a model example of the first with its numerous Aegean routes, while Alitalia has consistently demonstrated the second.

competition, state aid can only be made under certain conditions: to ameliorate conditions of natural disaster, to compensate for "issues of social character" (for instance, Lufthansa expanding to serve Berlin and East Germany following reunification), or to improve service in underdeveloped areas.[34] All conditions require injection transparency.

By the early 1990s, Europe had for the most part liberalized its international air service agreements to a similar level as the U.S., but it had become apparent that liberalization had ended too soon. Experts on both sides of the Atlantic agreed that the notion of flag carriers was obsolete and that the airline industry should therefore be normalized and allowed to operate like other industries. Speaking at the 1992 Air Transport Colloquium in Montreal, Jeffrey Shane of the U.S. Department of Transportation (DOT) argued that the debate was not about liberalization but "normalization—applying the rules that normally govern trade to trade in international air services….nothing like the system of government imposed impediments to economic decision making exists in any other sector of international trade."[35] In addition, industry experts acknowledged that liberalization proceeded only at the pace of the slower reformer. At the same conference, a Singapore Airlines representative noted that "bilateralism tends to trade restrictions rather than opportunities," hardly the economically desirable outcome for carriers or their countries. Finally, an additional factor encouraging further opening up of markets was that the airline industry as a whole had matured considerably during the 1980s: U.S. airlines became increasingly concentrated (especially following the merger mania of 1986 and the 1991

[34] Recent lawsuits against Alitalia involved the airline's using part of a €400 million loan from the Italian government to purchase Volare, a bankrupt Italian airline, rather than address its internal difficulties. Alitalia was alleged to be making the purchase to purchase additional slots at its primary hub, Milan Malpensa, and reduce competition.

[35] Shane recently noted that "it is ironic in the extreme that the industry that was deregulated first and that has been the engine for the globalization of so much of the world's economic activity, is among the last to be able to take advantage of one of the most important features of globalization—cross-border capital flows."

liquidations of Eastern and Pan Am) and sought to expand their operations overseas,[36] European airlines were also consolidating and seeking additional markets,[37] and governments were slowly realizing the benefits, both to consumers and taxpayers, of privatizing national industries.

Because American carriers had the most to gain, the U.S. was once again the driving force behind the second wave of liberalization.[38] As was the case before, the U.S. and the Netherlands in 1992 were the first to reach a new accord. The Netherlands' KLM had reaped enormous benefits from its previous agreement, carrying over 80% of U.S.-Netherlands traffic, much of which connected onwards to other European destinations. KLM and the Dutch government sought to further this dominant position and felt that being a small country, it would benefit considerably through further liberalization, especially if it were the first to do so. The new U.S.-Netherlands bilateral allowed for fully open access, unlimited fifth freedom rights,[39] open fare control, and full codeshare and commercial agreement freedom between Dutch and U.S. airlines.[40] In short, the U.S. was offering immunity from antitrust law for alliance partners, provided the foreign government would agree on an open skies agreement. Although open skies agreements were reached between the U.S. and other European countries, liberalization had again stalled by the new millennium, and the desired normalization of the airline industry had not

[36] By 1992, United had purchased Pan Am's Pacific and South American networks and London routes; American had purchased AirCal, TWA's London routes, and Eastern's South American network; Delta had purchased Western and most of Pan Am's transatlantic routes; Northwest had purchased Republic (itself a recent conglomeration of North Central, Southern, and Hughes Airwest); Continental had merged with Frontier, New York Air, and People Express; USAir had bought both Piedmont and PSA; and TWA had merged with Ozark.

[37] British Airways had bought rival British Caledonian, Air France had merged with Air Charter, Air Inter, and UTA, and Lufthansa had merged with East Germany's Interflug and bought out Pan Am's Berlin routes.

[38] According to ICAO, 75 of the 122 open skies agreements involve the U.S., yet most of these concern country-pairs where direct service does not exist. ICAO classifies over 90% of existing bilaterals as "traditional" in their structure.

[39] As noted earlier, fifth freedom rights are being more frequently granted but less frequently exercised. These rights are currently only used by Northwest between Amsterdam and Mumbai.

[40] Codesharing involves an airline marketing and selling seats on a flight operated by a partner airline. In this case, a Northwest passenger could purchase a ticket from Detroit to Hamburg and have the Detroit-Amsterdam segment flown by Northwest and the Amsterdam-Hamburg segment flown by KLM. In the past, IATA members could sell tickets for other airlines, but were unable to market them on their own. Codesharing has allowed airlines to expand their global reach without having to serve destinations "with their own metal."

been achieved. Open skies across the Atlantic has remained an elusive goal, but Europeans announced in 1999 their willingness to negotiate a Transatlantic Common Aviation Area (TCAA) with the U.S. and Canada, a process made easier since by the expanded open skies agreement between Canada and the EU and a similar agreement between Canada and the U.S. in November 2005. [41] The most significant result of the latter agreement was to allow American and Canadian airlines to offer continuing service to third countries, an important precursor to a TCAA.[42] However, regulatory issues, open service rights, ownership control, and competition law will all require harmonization and convergence before the North Atlantic can truly be open.

The primary issues facing European Union and U.S. regulators have involved alliances. Airline alliances have existed since the 1930s,[43] but did not become widespread until the last decade. Harvard's Michael Porter describes industrial alliances as "transitional devices. They proliferate in industries undergoing structural change or escalating competition, where managers fear they cannot cope. They are a response to uncertainty, and provide comfort that the firm is taking action." The airline industry today faces both of Porter's conditions; alliances are products of airlines seeking to maintain broad global options while at the same time reducing costs and exposure to competition.[44] Alliances and codeshare partnerships offer a means around the limitations of the bilateral system and serve as a transitory mechanism to create closer links and

[41] Canada and the U.S. have always had an unusual relationship in air transport, in part due to their close economic ties. Flights between the two countries are considered "transborder" rather than international and do not require customs at either end.

[42] Less than three months later, Air Canada announced Toronto-Sydney service via Los Angeles, with full traffic rights between Los Angeles and Sydney. Shortly after the agreement was reached, Air Canada provided liquidity in exchange for an investment stake in US Airways as part of the latter's emergence from bankruptcy, including the right of first refusal for regional partner Air Canada Jazz to fly transborder routes under the US Airways banner.

[43] One of the most famous early examples was between Australia's Qantas and the U.K.'s Imperial Airways on the "Kangaroo Route," on which the two met up in Singapore. Today British Airways and Qantas still use Singapore as their primary interchange.

[44] As an example, British Airways has in the last decade withdrawn its own service to cities as widespread as Dammam, Kuala Lumpur, Melbourne, San Diego, Santiago, and Seoul, but can still offer service to these cities thanks to its alliance partners.

higher revenues while still maintaining the ownership independence that national governments require.[45]

Alliances between airlines vary in both their degree and scope. Alliances typically begin as commercial partnerships and extend into the strategic realm. The most basic level (enjoyed by all IATA members) is interline rights and pro-rate agreements (as discussed earlier, a passenger can buy a single ticket and all airlines involved will receive their due). Airlines can also exchange ground handling responsibilities at outstations,[46] share computer reservations systems,[47] city ticket offices,[48] or telephone call centers. Airlines can also pool their frequent-flier programs.[49] Frequent-flier cooperation tends to lead very naturally into codeshare partnerships, with both often commencing simultaneously.[50] Schedule alignment and coordination often take place because of the importance of convenient connections between codeshare partners.[51] As alliances grow closer and become more involved, partners find it difficult to avoid using their assets to achieve independent objectives. Strategic alliances occur when airlines opt to intermingle their resources. Some of the above examples are both commercial and strategic in nature. Deeper levels of strategic cooperation include sharing

---

[45] The additional cost of alliances is minimal compared to the revenue they bring in. The U.S. General Accounting Office estimated the combined benefit of the then-young KLM-Northwest alliance in 1994 (just one year after antitrust immunity was granted) at between $175 and $225 million in additional revenue.

[46] Not to be confused with outsourcing, an airline with a strong presence in one region might handle flights for a small player, but have reversed roles in another region.

[47] Because of the enormous cost of developing reservation systems, most were developed as collaborations between airlines. The exceptions were American's Sabre and United's Apollo (now known as Galileo).

[48] With the increasing reliance on the Internet, ticket offices have largely become a thing of the past in developed countries.

[49] Airlines typically maintain independent frequent-flier programs (FFPs) that allow for passengers to earn and redeem miles on partner airlines. (Even outside of the U.S., frequent-flier programs use miles as their unit rather than kilometers.) In select cases, multiple airlines will maintain a single FFP. In the late 1990s, there was a rush in the U.S. to enter FFP alliances (in less than a month following Continental and Northwest's alignment, United had paired with Delta and American with US Airways).

[50] In some cases, codeshare agreements are on a block-space basis, where one airline will purchase capacity on the shared flights and then resell it.

[51] Alliances tend to co-locate their flight operations in the same terminals at major airports to allow for better connections between passengers and to allow greater utilization of ground assets.

maintenance facilities, joint products or branding,[52] and joint ventures in passenger and cargo services. When two carriers are cooperating in all these areas, it can be difficult to differentiate them from a merged entity. Alliances also differ in the extent to which airlines cooperate, primarily in the codeshare realm. Codeshares can be on a route-specific basis, for a particular region, or global in nature.[53]

Alliances began in the 1950s in various forms. In Europe strategic alliances developed while commercial ones were rare due to international divisions. The first alliance was established in 1958 between SAS and Swissair;[54] the two airlines shared maintenance responsibilities, training facilities, and parts inventories. By the end of the following decade, the SAS-Swissair alliance had expanded to include KLM and UTA.[55] In a similar vein, Air France, Alitalia, Iberia, and Lufthansa formed the Atlas group. In contrast, some strategic alliances have developed in the U.S. in recent years, but not to the same degree as Europe because of both the vast physical size of the U.S. and the larger airline fleets of the U.S.[56]

---

[52] KLM and Northwest offer an identical premium passenger product, their World Business Class. In addition, franchising of a brand name can occur. In the U.S. major airlines align with regional airlines to offer service to smaller destinations, with the regional affiliate operating under the colors of the major. The regional partner is generally paid on a per-departure or per-passenger basis, and offers lower costs than the major can provide. This system is not as common in Europe. The franchise term is generally never applied except in the case of British Airways, which has franchise partners to serve destinations in the Middle East, Mediterranean, Scandinavia, Scotland, and South Africa, and formerly in France, Germany, and Kenya.

[53] Codeshare partnerships are more frequent in Europe than the U.S. because they tend to involve smaller airlines and more countries than the U.S. For the same reason, one does not typically find route-specific partnerships within the U.S. Examples of the three levels for Delta would be El Al as a route-specific partner (New York-Tel Aviv), Alaska Airlines as a regional partner (Pacific Northwest and Alaska), and Air France as a global partner (Europe, Africa, Middle East, etc.).

[54] The alliance was formed because of the dawn of the jet age. Both airlines operated DC-8s, aircraft twice as large as anything produced to that point. In preparation for a similar size revolution, Air France and Lufthansa recently formed Spairliners, a joint venture maintenance company for the A380.

[55] At its height, KLM provided maintenance for the group's 747s and GE engines, SAS maintained the Pratt & Whitney engines, and Swissair maintained the Airbus and McDonnell Douglas widebody aircraft, indicating a high degree of specialization and taking advantage of economies of scale.

[56] Especially when cooperating in areas such as spare engines and parts, close proximity is critical in order to ensure that aircraft are grounded for as little time as possible. Nevertheless, it is surprising that strategic alliances were so successful in Europe given the language barriers present.

Interchanges began in the U.S. in 1929 when TWA[57] and various railroad lines cooperating to provide coast-to-coast service in 48 hours. Passengers flew by day and took the train overnight. In the postwar transportation boom, airlines began cooperating and offering interchange service, under which an airline's aircraft and crews would operate the routes of another airline, carrying their own passengers and those of the partner as well. For instance, Alaska Airlines and Braniff International cooperated on the "Pipeline Express," connecting Alaska with Dallas and Houston via Seattle. Alaska and Braniff would both sell tickets on the flights, but the aircraft would be operated by Alaska some days, and Braniff on others, even though Alaska had the rights between Alaska and Seattle, and Braniff the rights between Seattle and Texas. Interchanges lasted well into the 1980s and extended to overseas routes as well, but had become obsolete following the advent of deregulation and the free-for-all that resulted.

In the late 1980s, with U.S. airlines seeking to expand overseas and liberalization advancing in other parts of the world, global partnerships began to form. British Airways and United Airlines announced a marketing agreement in 1987, forming the world's largest travel alliance, with plans to expand to codesharing in the future.[58] It would have been the perfect marriage had it lasted; the largest carriers on each side of the Atlantic, and United without service to Europe. But United turned into a major competitor in 1990 (more on this later), forcing British Airways to try again with USAir in 1993.[59] British Airways shifted allegiances again in 1996 to American Airlines.

---

[57] Prior to 1950, TWA stood for Transcontinental and Western Air rather than the more recognized Trans World Airlines.

[58] United at the time owned Hertz Rent A Car and the Hilton International hotel chain. Codesharing was until just before illegal in Europe; British Airways, echoing governments' beliefs, stated in 1984 that "it is intrinsically deceptive for two carriers to share a designator code." British Airways nearly bought a 25% stake (75% of the equity) in United as part of the company's proposed leveraged buyout.

[59] The new deal, which included a major equity stake in USAir, would have occurred the year before had it not been an important issue in the U.S. presidential elections. In its second attempt, British Airways reduced its proposed equity in USAir from 44% to 19.9%.

At the same time, Delta Air Lines, a growing national player that quickly turned into a major international airline following its acquisition of Pan Am's transatlantic network, formed the Global Excellence alliance with Singapore Airlines and Swissair. The alliance later restructured into Atlantic Excellence following Singapore's departure and the addition of Austrian Airlines and Belgium's Sabena. However, more important developments were occurring between KLM and Northwest Airlines. Northwest was purchased in a leveraged buyout in 1989 by private individuals and KLM (20% of the total equity, but only 5% of voting control). KLM was, like British Airways, seeking to expand its presence in the U.S., especially given the recent open skies treaty between the Netherlands and the U.S. and the Americans' willingness to grant antitrust immunity (ATI). The two airlines began codesharing in 1991 and applied for and received ATI in 1993. This enabled the two to cooperate on flights not just between their gateways, but beyond them as well. ATI allowed unprecedented freedom to implement schedule and pricing coordination.[60] For over a decade, the KLM-Northwest alliance was the closest the world had to a true international airline merger, and still remains the closest relationship between transatlantic partners. The two later sought to expand their alliance through Northwest's investment in Continental Airlines, and KLM's in Alitalia. The resulting "Wings Alliance"[61] fell apart after KLM was unwilling to proceed with a full merger with Alitalia.[62]

Star Alliance, led by Air Canada, Lufthansa, SAS, Thai, and United, was founded in 1997 and today is the largest of the three remaining airline alliances.[63] Following Star Alliance's

[60] Today the two operate a true joint venture, with transatlantic revenue split 50-50 and routes switched on a semi-regular basis as needed.
[61] The name itself was never formally announced and never developed into a real brand.
[62] Recognizing that northern Italy is the growth engine of the national economy, KLM wanted Alitalia to shift service away from Rome and focus on a single-hub network centered on Milan. The Italian government and Alitalia's labor unions were strongly opposed to such a restructuring.
[63] In addition to the founding members, it includes Adria (Slovenia), Air New Zealand, ANA (Japan), Asiana (South Korea), Austrian, Blue1 (Finland), BMI (U.K.), Croatia Airlines, LOT Polish, Singapore Airlines, South African,

formation, other airlines rushed from their previous practice of "dating partners" to form their own global groupings as well. oneworld was founded in 1999 and, across the Atlantic, centered primarily around the American-British Airways partnership.[64] Swissair, seeking to maintain its independent leadership and act as a counterweight against the European "Big Three," established the Qualiflyer Group, a European alliance that eventually consisted of secondary carriers.[65] Originally founded in 1992 as a FFP partnership, it turned into a full alliance in 1998 when Swissair began acquiring ownership stakes in its partners,[66] notably Sabena.[67] Across the Atlantic, Swissair maintained its relationship with Delta, but switched to American when Delta formed SkyTeam in 2000 along with Aeromexico, Air France, and Korean Air.[68] Qualiflyer collapsed following Swissair's closing in 2001.

While each of the three current alliances, Star Alliance, oneworld, and SkyTeam appear similar on the surface, in actuality their internal dynamics are very different. While Star Alliance has focused on offering the broadest worldwide service to customers, this also has the undesirable result of creating friction and high competition between members in close geographic proximity. In Central Europe, Austrian, LOT, Lufthansa, SAS, and Swiss all compete

---

Spanair, Swiss, TAP (Portugal), US Airways, Varig (Brazil), and in the near future, Air China, Shanghai Airlines, and Turkish Airlines.

[64] Current members include Aer Lingus (Ireland), Cathay Pacific (Hong Kong), Finnair, Iberia (Spain), LAN (several South American nations, but primarily Chile), and Qantas (Australia). After several years without expansion, oneworld recently announced that JAL (Japan), Malev (Hungary), and Royal Jordanian will be joining in the near future.

[65] In addition to Swissair, Qualiflyer included lesser-known names such as Air Europe (Italy), Air Littoral (France), AOM (France), Crossair (Swissair's regional partner), LOT, Portugalia, Sabena, TAP, Turkish Airlines, Volare, and until its defection to Star, Austrian.

[66] Equity swaps among airlines are fairly common and are used both to cement relationships and as strategic investments in their own right.

[67] Swissair's objectives were highly different from other alliances. Swissair's parent company, the SAir Group owned numerous airline-related businesses and wanted to increase its group revenues while simultaneously turning around the fortunes of the distressed carriers it invested in. It viewed partial ownership control as the best way to ensure it would receive the desired contracts. The SAir Group owned service firms such as GateGourmet (airline catering), SR Technics (maintenance, repair and overhaul), swissôtel (hotels), and swissport (ground handling), all of which are independent today.

[68] SkyTeam today is the second largest alliance despite its late start, and also includes Aeroflot (Russia), Alitalia, Continental, Czech Airlines, KLM, and Northwest. Future members will include Air Europa (Spain), China Southern, Copa (Panama), Kenya Airways, MEA (Lebanon), and TAROM (Romania).

for much of the same traffic. Just as its home country has vocalized its misgivings with the European Union, so too has Austrian Airlines been rumored to be unhappy with its increasingly subservient position in Star. Star Alliance passengers can earn and redeem frequent-flier miles on any member carrier, but carriers themselves must establish their own codeshare agreements with each other.[69] Star has made substantial investments in presenting the alliance as a brand in itself.[70] In contrast, oneworld has been content to remain a small and exclusive group, and only in the last year has begun recruiting additional members, ensuring that they are highly complementary to the existing members.[71] Finally, SkyTeam has evolved as a framework of airlines built around preexisting partnerships.[72] Because SkyTeam was built around alliances already in existence, it has experienced the highest level of strategic integration, despite its late start.[73]

As alliances have grown steadily larger (they already make up two-thirds of all worldwide traffic),[74] its members have applied for increasing degrees of freedom to follow the proven path of the KLM-Northwest alliance. While long-term strategic integration such as joint aircraft orders has not yet occurred, antitrust immunity has also been applied by and granted to Air France-Delta and United-Lufthansa-SAS as well. American and British Airways have

---

[69] Star Alliance's breadth is the primary reason for this. Not all members feel a need to maintain codeshare agreements, as many have little traffic between their respective countries/regions.

[70] Members are required to paint a certain percentage of their fleet in a Star Alliance livery. SkyTeam has followed Star Alliance's tradition of featuring the alliance logo on aircraft fuselages.

[71] Aer Lingus announced in May 2006 that it would be leaving oneworld due to its repositioning in the market as a low-fare carrier, in direct contrast to alliances' position as competing for premium traffic.

[72] Delta, Aeromexico, and Air France were partners prior to SkyTeam's founding, and Delta had previously partnered with Korean Air until concerns about the latter's safety record (since resolved) led it to cut ties a few years prior. Alitalia, Continental, KLM, and Northwest had been partners in Wings, and Continental had partnered with Air France before SkyTeam was founded. Continental and Northwest entered the alliance primarily due to the Air France-KLM merger of 2004.

[73] SkyTeam's strategic cooperation is most evident in the cargo realm and in its major partnerships (Air France-Delta, Air France-KLM, KLM-Northwest).

[74] Joining an alliance does not obligate an airline to discontinue its ties with non-members, but it makes such links more expensive, as non-members will not be using the same integrated reservations platform.

repeatedly applied for these privileges, but have been denied them each time because they are the two largest airlines between the U.S. and the U.K.

Because of the overwhelming importance of the U.S.-U.K. market, any Transatlantic Common Aviation Area would need to resolve the biggest issue of contention between the two countries: access to London's Heathrow airport. On the importance of Heathrow to international travel, Petzinger writes "much more than an airport, Heathrow is a crossroads….the whole world changes planes at Heathrow.[75] Along with being vital, Heathrow is inaccessible." While Heathrow is only third in terms of total passengers (behind Atlanta and Chicago O'Hare), it handles the most international passengers in the world. When one adds the passenger numbers for London's four other airports, it easily wins the crown as the world's most served city. However, like the other major hubs in Europe, Heathrow is constrained by suburban sprawl, noise restrictions, and safety constraints, which together limit the number of operations per hour (rights are referred to as "slots").[76] Unlike most of its competition on the continent, Heathrow (and London's second major airport, Gatwick[77]), are both limited in the services they can provide to the U.S. While the rest of the U.K. is open to all traffic, Heathrow and Gatwick are restricted.[78] The British renounced the original Bermuda agreement in 1976 because of concerns about the dominance of Pan Am and TWA, the designated U.S. airlines across the Atlantic prior

[75] British Airways touts itself as "the world's favourite airline."
[76] Slots tend to be binding constraints only in Europe. The U.S. has slot constraints at only four airports (Chicago O'Hare, New York Kennedy, New York LaGuardia, and Washington Reagan). In most of the world, airports also tend to have night curfews to reduce noise (U.S. airports do not usually have strict curfews, but rather limitations on aircraft types).
[77] Heathrow is more desirable for travel to London itself because of its closer proximity to the city center and its vastly superior transportation connections, and superior for connecting traffic because foreign airlines invariably select Heathrow as their London terminus rather than Gatwick, which has developed a high percentage of leisure traffic. The airline and destination portfolios of the two airports reflect this.
[78] London's three other airports, City, Luton, and Stansted are unrestricted. The first possesses runways too short for longhaul operations, while Luton and Stansted are "low-fare" alternatives within Europe, and therefore undesirable for onward connections. Eos Airlines, MAXjet Airways, and soon Silverjet are new entrants with all-business class service and serve either Luton or Stansted.

to deregulation,[79] and to provide more rights to charter operators while at the same time improving British Airways' competitive position. Therefore, a more restrictive agreement, known as Bermuda II, was signed in 1977 and entered effect the following year.[80]

Under the terms of Bermuda II, only a certain number of U.S. gateways could be served from London, with some permanent, while others could be switched.[81] In addition, only certain airports could be served from Heathrow, provided the airline had access rights to Heathrow. Finally, Bermuda II restricted Heathrow to solely those airlines already serving it. The situation was complicated further in 1980 when U.S. Speaker of the House Thomas O'Neill and Senator Edward Kennedy (both from Massachusetts) demanded an amendment to Bermuda II so that Pan Am could resume service to Heathrow from Boston. The British agreed, provided that only two U.S. and two U.K. airlines could ever fly Heathrow-U.S. routes at one time. If not Pan Am and TWA, then their "corporate successors," language that was meaningless until Pan both saw a need to shed assets to stay afloat. In 1990, Pan Am tried to sell its Heathrow rights to United (with the goal of eventually selling the entire airline and saving jobs).[82] American's reaction was to buy the same rights from the ailing TWA. However British Airways' objections, noting the "corporate successors" language, were upheld;[83] American and United were corporate successors only if they bought the entireties of Pan Am and TWA, and were merely exchanging assets

[79] National Airlines also flew Miami-Heathrow, but was bought by Pan Am in 1980.
[80] Bermuda II has, from the British perspective, been a major success. British airlines today operate slightly more flights than U.S. airlines between the two countries, but carry proportionately more passengers. On routes from Heathrow by airlines from both sides, only Chicago (United's largest hub and a major hub for American as well) has a greater market share for U.S. carriers. British Airways alone carriers more passengers than all U.S. airlines combined.
[81] Gateways with American and British airlines operating today are Atlanta, Boston, Chicago, Dallas, Detroit, Houston, Los Angeles, Miami, Newark, New York, Philadelphia, San Francisco, and Washington. U.K. airline-only gateways are Baltimore, Denver, Las Vegas, Orlando, Phoenix, Seattle/Tacoma, and Tampa, while U.S. airline-only gateways are Charlotte, Cincinnati, Cleveland, Minneapolis/St. Paul, and Raleigh/Durham. Other gateways no longer active include Honolulu, Pittsburgh, San Diego, San Juan, and St. Louis.
[82] Pan Am sold its entire Pacific network (including aircraft and employees) to United in 1985.
[83] American's head, Robert Crandall, once complained that "when the British government sits down to negotiate with the U.S. government, British Airways sits at the table. I'm not allowed in the room."

otherwise. To appease the British, the U.S. allowed the upstart Virgin Atlantic to serve the U.S. from Heathrow,[84] which angered British Airways, but was compensated for by British Airways receiving full authority to codeshare with a U.S. partner.

Because of their combined dominance between the two countries,[85] the restrictions faced by American and British Airways are far steeper than those in other alliances. While the two can cooperate on services beyond their gateways, they can neither offer codeshare service nor allow reciprocal mileage earning to their customers on flights between the two countries. Because the American-British Airways connection is by far the most important in oneworld, this may be part of why oneworld has not developed as successfully as its rivals. The alliance's competitiveness has also been hurt by American and British Airways' inability to serve Dallas/Ft. Worth (American's primary hub) from Heathrow.[86] Each time American and British Airways have applied for ATI (and the full codesharing privileges it allows), U.S. and U.K. authorities have agreed that the two would need to divest itself of a significant number of slots to maintain competition.[87]

Even if Heathrow were to open up to the four major U.S. airlines unable to serve it today,[88] none would be able to actually move from Gatwick without first acquiring slots, which

---

[84] Virgin Atlantic began serving the U.S. as a successor to Laker's Skytrain in 1984 from Gatwick. Today Virgin Atlantic is British Airways' biggest competitor, and the two maintain a bitter rivalry due to a case of customer hijacking by British Airways and seemingly opposing corporate cultures.

[85] For the winter 2006/07 season, the established airlines between London and the U.S. offer the following numbers of round trips per week: British Airways – 281, American – 115, Virgin Atlantic – 98, United – 63, Continental – 35, Delta – 28, Northwest – 14, US Airways – 14. This corresponds to a Herfindahl-Hirschman Index of 2576.

[86] It is possible to get around the Heathrow restriction: because of high demand from Houston to onward oil business destinations, British Airways has opted to serve Houston with nonstop service from Gatwick, but from Heathrow via a stopover at a Heathrow-designated gateway (Detroit at this time). Likewise, American has one of its Heathrow-Chicago flights continue onward to Dallas/Ft. Worth.

[87] The European Commission's 1998 conditions were that both airlines would need to cut 25 weekly transatlantic round trips between American and British Airways hubs, plus an additional 108 weekly round trips on routes of their own choosing (in sum, more than 19 round trips per day, all without compensation). British Airways withdrew the application after learning these conditions.

[88] On the British side, the country's third largest airline, BMI, has been lobbying unsuccessfully to open up Bermuda II so it can also serve the U.S. market from London, and so has opted to serve the U.S. from Manchester instead.

are essentially unavailable. These airlines have proposed revising Bermuda II further to allow them to enter for competitive reasons, but incumbents have opposed this not just because of the increased competition, but on distributive grounds; under their proposal, new entrants would not be paying their way into the club. Until the Heathrow issue is resolved, it is highly unlikely to see any major breakthroughs in EU-U.S. negotiations.

Because of the country's vast size, European officials have repeatedly shown interest in cabotage rights as part of an open skies agreement with the U.S. American negotiators point out that this would require national legislation to grant such rights, which the U.S. Congress is highly unlikely to give. Finally, the question of whether European airlines would fully exercise open skies rights without further integration is open for debate (would a Frenchman fly Paris-Boston on Lufthansa?). While European airlines remain strong national symbols, other airlines such as easyJet or Ryanair, which tend to ignore national borders, might someday take advantage of such access.

While Heathrow access is the main issue for the U.S. in reaching an accord with the European Union, the Europeans (and several U.S. airlines) want relaxation of ownership constraints to allow for international mergers and full normalization of the airline industry. Airlines operating within in the European Common Aviation Area must be majority owned and controlled by EU nationals, but if they wish to fly abroad, then ownership rules in the relevant bilateral enter effect. By comparison, U.S. airlines must have the majority of equity owned by U.S. interests, while no more than 25% of voting control can belong to foreigners. In addition, the president and at least two-thirds of the Board of Directors and company officers must be Americans.[89] This is despite the U.S. Department of Transportation's position since 1991 that

[89] Donald Carty, former chairman and CEO of American and current chairman of Virgin America and Canada's Porter Airlines, is a dual citizen of Canada and the U.S.

ownership limitations be loosened to 49% of voting control. Among U.S. airlines, this position is generally supported by those in worse financial shape and therefore desiring such investment, and opposed by their stronger brethren who would be at a competitive disadvantage were such capital injections to occur.[90] Due in part to the low capitalization of U.S. airlines, consolidation has been slow following the shakeout of the early 1990s, but seems to be on the rise.

In May 2000 United and US Airways announced a plan to merge the two carriers under the United name. American and Delta felt a need to counter, so American-Northwest and Delta-Continental merger discussions also took place.[91] Eventually, American settled on buying a severely weakened TWA[92] (which entered a third bankruptcy as part of the deal) for a bargain price.[93] United eventually called off its purchase of US Airways when it became apparent that it could not allay the U.S. Department of Justice's antitrust concerns.[94] US Airways was bought by the smaller and highly complementary America West Airlines in 2005 (retaining the US Airways name),[95] with integration scheduled to be completed in 2007. Further consolidation in the U.S.

---

[90] Continental, Northwest, and US Airways have been the main recipients of such foreign support. As discussed earlier, Northwest received equity from KLM in its leveraged buyout, and USAir from British Airways in the early 1990s. Air Canada and SAS invested in Continental as part of the latter's bankruptcies in the 1980s, and Air Canada took part of US Airways' recent emergence from bankruptcy.

[91] American had looked into acquiring Northwest in the recent past, as the two's international networks are highly complementary, their domestic operations and fleets less so.

[92] TWA had suffered through the 1990s because of an unfair deal forced on it by owner Carl Icahn prior to his ousting in 1993. Icahn's Karabu Corporation was given rights to buy TWA seats (except beginning and ending in St. Louis) at 45% off the published fare for the next ten years, costing the airline an estimated $150 million annually. The airline's second bankruptcy, in 1995, was undertaken to try and void the terms of the deal.

[93] TWA's fleet, centered around the MD-80 (of which American flew more than 200), was of considerable size compared to the market value of the company. Critics of the deal later pointed to the unfair integration of seniority lists in favor of American employees, which resulted in only 1,500 of 24,000 of TWA's employees remaining with the merged company following post-2001 furloughs. The merger pushed American ahead of United to become the largest airline in the world, the fourth time the companies had switched positions. The merger also furthered American and British Airways' London-U.S. dominance.

[94] Experts attribute both airlines' dismal post-2001 performances to the fact that both managements were devoting considerable effort towards the merger (despite it being clear it would not go through) and not to their own companies. Both leaderships were soon replaced.

[95] US Airways' network was almost totally focused on the East Coast, whereas America West's hubs were only in the Western U.S.

could be forthcoming following US Airways' attempt at a (hostile) takeover of Delta Air Lines, announced on November 15, 2006.[96]

While much-needed consolidation has occurred to some degree within the U.S., more substantial progress has been made in Europe. Although Swissair's attempts at consolidating airlines under the Qualiflyer umbrella ultimately ended in failure and liquidation,[97] Air France's 2004 takeover of KLM[98] has seen tremendous results: the merged entity reported net profits of €913 million ($1.17 billion) in its first year. Original cost synergies were estimated at €660 million, but the company recently announced that it foresaw as much as €1 billion in additional potential savings. Lufthansa made a similar purchase of struggling Swiss the following year, which has shown potential for similar results.[99] Speculation has long been that British Airways would merge with Iberia because of the pair's complementary networks,[100] but the U.S. has indicated it would block such a merger unless Heathrow limitations were lifted. Similar rumors persist that Virgin Atlantic would buy BMI for its Heathrow slots and for European feed. Finally, the oft-troubled Alitalia[101] has shown an interest in joining the Air France-KLM union,[102] but Air France-KLM maintains that Alitalia must be privatized and profitable before it will open merger talks. In Europe's smaller nations, Austrian Airlines bought competitors Lauda Air and Tyrolean

[96] In the months leading up to the announcement, industry analysts were discussing the merits of Delta-Northwest and United-Continental mergers.
[97] Swiss was formed from the assets and employees of Swissair and Crossair, while SN Brussels Airlines succeeded Sabena. Both bankruptcies were the countries' largest ever and required government bailouts until their successors could be formed. Swissair's poor judgment in controlling Sabena has still soured relations between the two nations. French carriers Air Littoral and AOM and the Italian Volare also no longer operate.
[98] As part of the merger, the KLM brand will continue to exist for at least five years. It is unclear whether Amsterdam will eventually become subservient to Paris.
[99] Lufthansa reported a €329 million ($413.7 million profit for the third quarter of 2006, down from the previous year's third quarter profit of €416 million, but forecasted an operating profit of €750 million for the year, a 30% increase on 2005's €577 million.
[100] Iberia's strength intercontinentally is in Latin America, where British Airways offers only limited service. British Airways currently maintains a 10% stake in Iberia.
[101] Air Transport World, a monthly industry publication (which the author once worked for), features headlines from the decade ago month in each issue. A recently featured headline from 1976 read simply: "Alitalia is struggling."
[102] Air France and Alitalia hold 2% equity holdings in each other.

Airways, Transit Air Portugal recently announced a merger with the smaller Portugalia, and SN Brussels Airlines will integrate with Virgin Express to create Brussels Airlines.

To date European airlines have not severely tested U.S. ownership law in their quest to expand service in the U.S. However, one interesting case has been Virgin's attempt at establishing a U.S. franchise.[103] JetBlue Airways, now the eighth largest airline in the U.S. despite being founded as recently as 2000, originally approached Branson for rights to use the Virgin name. Branson later called backing out of JetBlue one of the biggest mistakes of his career.[104] Virgin America was announced in 2004 as an American low-fare carrier to be based in San Francisco, with plans to begin service in 2005. However, it had trouble securing U.S. investors[105] and did not file its application for DOT approval until December 2005.[106] U.S. majors, led by Continental, filed motions objecting to Virgin America's claims of U.S. citizenship, with the intent of blocking or delaying Virgin America's entry into the market. The DOT has still not ruled on the application, but Virgin America currently plans to open in the first quarter of 2007.

The debate over foreign ownership vs. Heathrow access has affected other Virgin-branded airlines as well. Continental announced in December 2004 that it would begin Newark-

[103] The Virgin Group, owned by the U.K.'s Sir Richard Branson, is a group of separately managed companies in different business areas. Branson partly or wholly owns each company and licenses the Virgin brand out to numerous companies. In the airline industry, the Virgin brand has been applied to Virgin Atlantic, Virgin Blue (which controls 40% of the domestic Australian market), Virgin Express (a relatively unsuccessful Belgian low-fare airline), Virgin Nigeria (the country's new national airline), and Virgin Sun (the airline unit of Virgin Holidays until its sale in 2001).
[104] In 2005, JetBlue carried more traffic (both passengers and revenue passenger miles) than Virgin Atlantic.
[105] In an interview, Branson indicated that rather than having difficulties securing investors for an airline in the troubled U.S. market, they were moving forward cautiously to be sure that the right partners were secured. Branson's relationship with Virgin Blue's majority owner, Patrick Corporation, has been a less than amicable one.
[106] Virgin America's application was the longest and most detailed of any startup airline in history. Virgin America's startup capital, $177.3 million, is also the largest ever.

Lagos service the following year.[107] Virgin Nigeria, 49% owned by Virgin Atlantic and the remainder by Nigerian institutional investors, filed with the DOT less than two weeks later to begin service to New York. As part of its application, Virgin Nigeria noted that "although [it] is aware that U.S. airlines seeking entry into Nigeria have experienced difficulties in the past, the Government of Nigeria has assured Virgin Nigeria that it would promptly approve air service proposed by any U.S. air carrier." But Virgin Nigeria quickly became a pawn in the Heathrow debate; the DOT rejected Virgin Nigeria's application on the grounds that because Virgin Atlantic held a 49% stake in Virgin Nigeria, Virgin Nigeria should be viewed as a British airline rather than a Nigerian one, and therefore subject to the restrictions of Bermuda II.[108] Nigeria retaliated by denying Continental's proposal to fly to Lagos. Although Virgin Nigeria finally received U.S. access rights in 2005, the negative effects that the EU-U.S. debate imposes on outside countries is certainly troubling.

Finally, creation of an open skies agreement between the European Union and the U.S. will require the resolution of competition policy between the two parties. However, some competitive issues are inherent in the marketplace, often the result of the system of alliances, which is itself just an extension of the hub dominance that has characterized the U.S. airline industry since deregulation.[109] Because hub-to-hub traffic is rarely encroached on without

[107] Continental was widely expected to be successful on the route, not only because of its strong international performance, but also because of its dominance in Houston, home to many U.S. oil corporations and a large Nigerian population.

[108] By the same argument though, Virgin Atlantic, 49% owned by Singapore Airlines, should be subject to the terms of the U.S.-Singapore open skies agreement and therefore granted full access to the U.S.

[109] In order to construct efficient networks capable of serving a high number of cities, U.S. airlines have established "hubs" where they concentrate and time their traffic to maximize connections. This has the additional effect of deterring new entrants while simultaneously raising fares. Smaller cities that have a hub tend to see the highest single-airline dominance, while the largest cities, with their multiple airports, tend to be less concentrated.

sufficient passenger feed at one end,[110] competition for passengers desiring nonstop service is highly constrained.[111] While the possibility of substitutability towards connecting service becomes greater as travel distance increases, business travelers will rarely take this option, even if there is a less expensive fare.

While hub dominance may lead to the exit of competitors, they also tend to result in the strategic withdrawal of one of the partners as well. Swissair and Sabena split up routes between Belgium and Switzerland following the formation of their alliance, while KLM and Northwest have done the same. With the introduction of alliance partners though, the effects of hub dominance become even more pronounced. While an airline may not dominate an airport's traffic on its own, the introduction of partnerships can enhance its competitive position. For instance, KLM's 1998 market share in Amsterdam improves from 44.4% to 69.1% when one includes its subsidies and partners rather than just the primary entity.[112]

In their attempts to ensure airline competition, the U.S. and the EU have developed very different policies. Domestically, the DOT in the 1980s followed the theory of contestable markets and approved all the merger proposals it received. As a result, U.S. domestic airline competition (including alliances) tends to be reliant on the DOJ and antitrust legislation.[113] Internationally though the State Department is supreme and believes that competition from open skies agreements outweighs the anticompetitive effects of alliances (despite the Department's

---

[110] As an example of the power of the hub, the Amsterdam-Detroit market sees a little over 100 passengers per day seeking to travel between the two cities per week. But because KLM and Northwest are able to offer onward connections, they have offered as many as 1800 seats per day.

[111] Even feed at one end by a competitor can be insufficient. American in the 1990s withdrew from four transatlantic routes (Chicago-Dusseldorf, Miami-Frankfurt, New York-Brussels, and New York-Zurich) where it had to compete with other alliances despite having its own passenger feed. Even the coveted Heathrow access does not guarantee success on a route: United recently sold its New York-London rights to Delta for $21 million.

[112] This augmentation is greatest in Europe, where route-specific partnerships are common.

[113] Most notably, American has been involved in numerous cases of alleged anticompetitive behavior involving its Dallas/Ft. Worth hub. DOJ action relies on the hypothetical monopoly test and partly on market concentration measures.

decades-long opposition to revenue pooling). The European Commission though feels that potentially anticompetitive mergers or alliances should be treated immediately and requires the divestiture of slots, and in some cases, route licenses.[114] The two different approaches for preventing anticompetitive alliance behavior are both problematic in themselves and more so when compared with one another. Anticompetitive behavior seems to have persisted outside the realm of airline alliances as well. In February 2006 American and European authorities raided airline cargo offices after uncovering evidence of price fixing since 2000 in the international cargo market. A class-action lawsuit representing cargo consolidators against twenty airlines[115] alleges that the companies publicly announced their fuel surcharges on cargo and thereby signaled each other as to their prices.

The ongoing EU-U.S. aviation negotiations have been also soured by several other issues. Both sides have accused the other of improper funding for their respective aircraft industries. The U.S. contends that Airbus SAS, a consortium of British, French, German, and Spanish companies, received $3.7 billion in improper aid[116] to launch its A380 program.[117] Airbus has also requested an additional $1.7 billion in launch aid for the new A350 program, and according to the U.S., an additional $1 billion from the European Investment Bank used to launch other aircraft families over the past two decades.[118] The EU's response is that The Boeing Company receives similar aid, but in different forms: tax incentives by local governments and highly

[114] The first application of this was in the British Airways-British Caledonian merger. British Airways had to surrender slots, give up all domestic routes from Gatwick and some international licenses, and was limited to no more than 25% of all flights at Gatwick. Similar measures were applied in subsequent mergers, but have for the most part not generated greater competition.

[115] The companies involved were all major cargo industry players: Air Canada, Air France, American, Asiana, Atlas Air, British Airways, Cargolux, Cathay Pacific, JAL, KLM, Korean Air, LAN, Lufthansa, Nippon Cargo Airlines, Polar Air, SAS, Singapore Airlines, Swiss, United, and Virgin Atlantic.

[116] The aid is improper because it is upfront and at no or low interest rates, with repayment being partially forgiven if a product is not commercially successful.

[117] The A380 is the largest commercial aircraft ever with seating for 555 passengers in standard configuration. The program has been beset by significant delays, with entry into service coming two years later than originally planned.

[118] Protecting jobs are also at stake. Boeing employed 153,000 workers in 2005; Airbus employed 53,000.

favorable military contracts.[119] In addition, the U.S. Export-Import Bank provides loans to help ensure that foreign companies or governments can buy Boeing products.[120] Similarly though, Airbus' home governments have provided similar local assistance and loan guarantees to buyers, in addition to $4 billion of debt forgiveness by Germany in 1998. Following Airbus' announcement that it would develop the A350, a competitor to Boeing's under-development 787, the U.S. declared it would take the case to the World Trade Organization. In the end, the subsidy issue may be decided by which side interferes more rather than less.

The EU also objects to unfair advantages U.S. airlines receive under Chapter 11 bankruptcy. Airlines are free to renegotiate contracts with employees and creditors and can therefore lower their costs with less difficulty than otherwise. In Europe bankruptcy laws are far less lenient for troubled companies. This issue has become greater in recent years following the restructurings of several U.S. airlines.[121]

Finally, Europe has objected to the "Fly America" policy, a blatant protection of U.S. airlines that has existed since 1974. The Fly America Act states that anyone on travel paid for by the U.S. government must fly a U.S. airline to foreign destinations, regardless of inconvenience or higher cost.[122] This policy also applies to cargo from U.S. government contracts. Furthermore, international airmail contracts are restricted to only U.S. carriers, even though many foreign governments allow U.S. carriers to bid for their international airmail. U.S. airlines may not lease foreign aircraft or crew, yet they are free to lease out as they see fit.

---

[119] From 1998 to 2003, Boeing received approximately $20 billion from the Pentagon for research and development purposes. R&D paid for by the Pentagon has considerable applications to commercial aircraft design.
[120] Over half of the Export-Import Bank's annual loans are to pay for Boeing aircraft. Boeing is the single largest exporter in the U.S.
[121] Since 2001, Delta, Northwest, United, and US Airways have all filed for Chapter 11. Air Canada also reorganized during this timeframe.
[122] Should a U.S. airline be unavailable, then the passenger must fly on a U.S. airline-codeshared flight if available.

Looking forward, while the EU-U.S. negotiations have reached agreement on numerous issues, the current draft agreement is stuck on the definition of "actual control" of an airline. However the agreement as it stands is for liberalization rather than open skies. Compromise will also be difficult given recent U.S. election results; Representative James Oberstar (D-Minn.) will be chairing the House Transportation Committee, and is critical of opening up foreign investment, arguing that it would threaten jobs and national security. On the positive side, the new agreement would replace the bilaterals currently in effect between the U.S. and EU member nations with a single standard. The U.S. would accept designation of EU community airlines rather than national designation and would harmonize safety and security policies[123] and lead to greater cooperation in applying competition policy. The shortcomings of the agreement are that it fails to address questions of ownership law, public service obligations, slot allocation, the "Fly America" policy, and U.S. bankruptcy law. Nevertheless, the new agreement is a positive step forward, especially since the two parties will enter into a second round of negotiations within sixty days to try to reach further open skies. With consumer benefits for a fully liberalized EU-U.S. aviation market estimated at $6.2 billion per year[124] and the possibility of setting a global standard in air transport policy, it would be unfortunate for the opportunities of a liberalized air transport market to be passed up.

[123] The biggest challenge has been regarding the U.S. government's insistence on access to passenger manifests of flights that fly over the U.S. The U.S. is also unwilling to let Canadian airlines fly over U.S. territory on Canadian domestic flights without access to passenger manifests. This is especially problematic for flights between Toronto and Western Canada.

[124] This was the estimate of a 2002 study by the Brattle Group.

References

Calder, Simon. *No Frills: The Truth Behind The Low-Cost Revolution In The Skies*. London: Virgin Books, 2002.

Davies, R.E.G. *Airlines of the United States since 1914*. Washington: Smithsonian Institution Press, 1972.

Davies, R.E.G. *TWA: An Airline and its Aircraft*. Airlife Publishing, 2001.

Davies, R.E.G. *Pan Am: An Airline and its Aircraft*. New York: Orion Books, 1987.

De Murias, Ramon. *The Economic Regulation of International Air Transport*. Jefferson (N.C.): McFarland & Co., 1989.

Doganis, Rigas. *The Airline Business in the 21st Century*. London: Routledge Publishing, 2001.

Doganis, Rigas. *Flying Off Course: The Economics of International Airlines*. London: Routledge Publishing, 2002.

Gandt, Robert. *Skygods: The Fall of Pan Am*. New York: William Morrow and Company, Inc., 1995.

Knorr, Andreas and Andreas Arndt. *Swissair's Collapse – An Economic Analysis*. http://www.iwim.uni-bremen.de/publikationen/pdf/W028.pdf.

Morrison, Steven A. and Clifford Winston. *The Evolution of the Airline Industry*. Washington: Brookings Institution, 1985.

O'Connor, William E. *An Introduction to Airline Economics*. New York: Praeger Publishers, 1985.

Ott, James D. and Raymond E. Neidl. *Airline Odyssey*. New York: McGraw-Hill, 1995.

Peterson, Barbara Sturken and James Glab. *Rapid Descent: Deregulation and the Shakeout in the Airlines*. New York: Simon & Schuster, 1984.

Peterson, Barbara S. *Blue Streak: Inside jetBlue, the Upstart That Rocked an Industry*. New York: Portfolio, 2004.

Petzinger, Thomas, Jr. *Hard Landing: The Epic Contest for Power and Profits That Plunged the Airlines into Chaos*. New York: Three Rivers Press, 1996.

Reed, Dan. *The American Eagle: The Ascent of Bob Crandall and American Airlines*. New York: St. Martin's Press, 1993.

Robinson, Aaron. *"Coloniser, c'est transporter": The Case of Virgin Nigeria*. http://www.simairline.net/bios/virgin_nigeria.pdf

Sampson, Anthony. *Empires of the Sky: The Politics, Contests, and Cartels of World Airlines*. New York: Random House, 1985.

Serling, Robert J. *Eagle: The Story of American Airlines*. New York: St. Martin's/Marek, 1985.

Williams, George. *The Airline Industry and the Impact of Deregulation*. Cambridge (U.K.): Ashgate, 1993.