

Spurred by the open-skies agreement between the United States and the European Union, a new era of global competition is emerging. And just as every chess move reflects a strategic calculation, airlines are scanning a giant trans-Atlantic chessboard, trying to devise the right strategic moves.

By Chris Spidle | *Ascend* Contributor

A photograph of a globe on a chessboard. The globe is the central focus, showing the continents of North and South America. It is surrounded by various chess pieces, including a king, a queen, and a rook, which are slightly out of focus. The lighting is warm and golden, creating a dramatic atmosphere. Overlaid on the globe is a grid pattern with the word 'CHECKMATE' in large, bold, white and yellow letters. The letters are arranged in two rows: 'C H E C K' on the top row and 'M A T E' on the bottom row. The grid cells are a mix of light and dark brown, resembling a chessboard.

# C H E C K M A T E



Signing of the open-skies treaty on April 30, 2007, between the European Union and the United States was an historic event from many perspectives.

The agreement grants any E.U. or U.S. airline — for the first time — full traffic rights to fly between any point in the European Union and any point in the United States. Among the numerous changes this agreement brings, perhaps the biggest effects are being felt in the United Kingdom/United States arena — the largest and previously most restricted trans-Atlantic market. Previously, only four carriers were allowed to serve the United States from London Heathrow Airport. With the agreement, additional carriers can operate flights from Heathrow to the United States.

Those who compare airline-network strategy issues to a high-stakes game of chess with multiple players can readily recognize the new rules as a game-changing event. The changes raise several pertinent questions:

■ What new business moves are now possible?

- What are the inclinations of the players?
- What strategies will be most effective?
- How will the game board look in five years?

Previous experience in similar situations suggests the industry could develop in four phases:

1. Incremental change — Airlines will finally make long-sought incremental changes based on sound economic underpinnings, such as adding service to large and previously restricted markets such as Heathrow.
2. Exuberant experimentation — There will be a period of innovation and experimentation as airlines add previously prohibited new routes and/or flights. Precedents will be set as limits are tested. Expect a few trials — and probably some errors, as well.
3. Survival of the fittest — Powerful basic economic factors will cull some of both the new and already-existing services. Networks and business models with sustainable economic fundamentals will prevail.

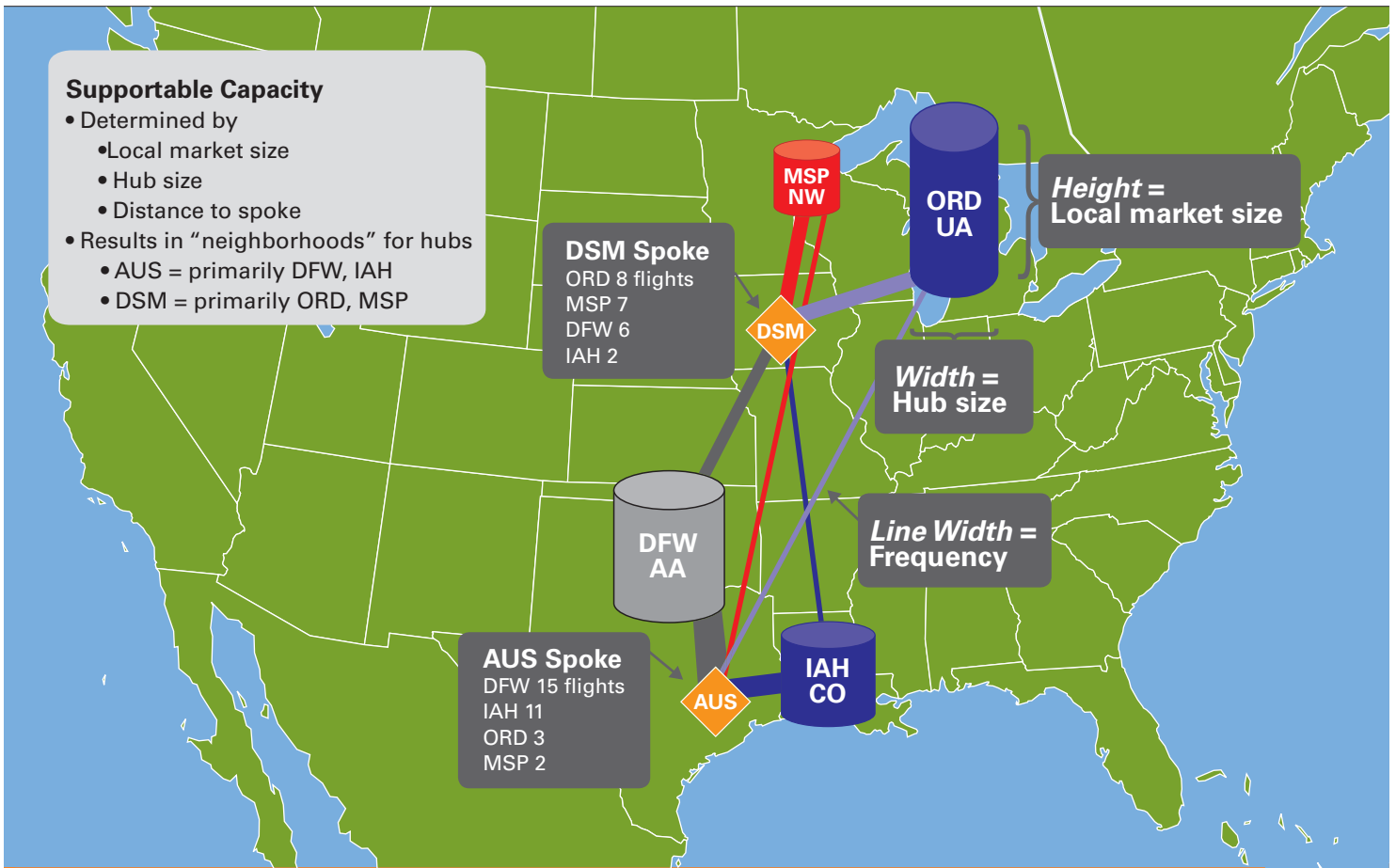
4. Finding equilibrium — The airline industry will converge to a new balance point. The ultimate extent of change will be determined by government policy for mergers and rules for foreign ownership of U.S. airlines. Unexpected geopolitical or economic events could significantly influence the pace of change.

Before speculating further on what actual changes might occur during these prospective phases, it is important to understand the regulatory changes that have been introduced by the open-skies treaty.

Game rules for the trans-Atlantic chess match now include expanded traffic rights and other new freedoms. There is now a single E.U. market for air transportation as the European Union replaces individual countries in bilateral agreements with the United States.

The “community carrier” concept replaces airline nationality. Now E.U. airlines may fly from any E.U. country to the United States — not just their home country. For example, British Airways can now fly from Belgium to the United States as

## “Supportable Capacity” Paradigm



Airline planners sometimes use the “supportable capacity” paradigm to describe the amount of capacity that a market can profitably sustain on a long-term basis. The construct illustrates that hubs have structural advantages for serving nearby points and that this creates natural neighborhoods for each hub. This effect is independent of political boundaries and is observable in borderless markets, such as the U.S. domestic market.

## European Common Aviation Area

- A multilateral aviation agreement among the 27 members of the European Union and nine other European countries
- Creates a common area for aviation by extending application of E.U. legislation to nearby areas
- Extends the E.U. internal air transport market
- Nine non-E.U. countries in the ECAA as of April 30, 2007:
  - Albania
  - Bosnia and Herzegovina
  - Croatia
  - Iceland
  - The former Yugoslav Republic of Macedonia
  - Montenegro
  - Norway
  - Serbia
  - The UN Interim Administration Mission in Kosovo

The European Common Aviation Area is a flexible framework that's membership can change over time. It includes all 27 E.U. countries plus additional adjacent countries. Within the context of the E.U.-U.S. open-skies treaty, non-E.U. members of the ECAA are defined to be the nine countries that were ECAA members when the treaty was signed last year.

well as from the United Kingdom to the United States.

Many other rules on codesharing, pricing, franchising and other areas have also been relaxed.

On a global scale, the United States has already been fairly successful in achieving its stated policy goal of open-skies agreements worldwide. And Europe, in general, has not been an exception.

For example, open-skies bilateral agreements were already in effect between the United States and 16 of the current E.U. countries. So the new E.U.-U.S. open-skies agreement represents a bigger change between the United States and the 11 other E.U. countries that had either a more restrictive bilateral or no previous bilateral agreement with the United States.

While the new agreement represents a substantial change, it falls short of a few of the E.U. negotiators' key objectives for cabotage and foreign ownership restrictions for U.S. airlines.

Although the U.S. Department of Transportation originally proposed terms that permitted foreign control of U.S. airlines, these ownership provisions subsequently met strong political resistance in the U.S. Congress. So U.S. negotiators offered different changes instead, and the modified agreement has gone forward provisionally as "Stage 1" while negotiators continue to work on what would eventually become a final agreement in "Stage 2."

To ease E.U. concerns that the United States now feels reduced incentive to negotiate the remaining Stage 2 issues, the European

Union reserved the right to begin rescinding freedoms granted in Stage 1 if there is no progress in Stage 2 negotiations by the end of next year. And British Airways has already publicly stated that if no real progress has been made by then, it will ask the U.K. government to start the process of rescinding Stage 1 freedoms in 2010.

That possibility, of course, could be rendered moot if business reality and success have become so ingrained on both sides of the Atlantic by 2010 that neither side would really want to turn back the clock.

An important, inconvenient detail is that while the open-skies treaty offers greatly increased traffic rights, it does not change the requirement for airlines to obtain slots for flights. And it happens that some of the airports that represent the richest targets for airlines to take advantage of the expanded traffic freedoms are also the most slot restricted.

However, carriers have been solving this problem by essentially purchasing slots. Although E.U. law technically prohibits the buying and selling of slots, airlines operating there do trade slots in a "gray market." And airlines have tapped into this market heavily as they prepare to take full advantage of the open-skies agreement's new freedoms.

### First Moves: Incremental Change

Airlines have already announced schedule changes to take advantage of the additional freedoms in the aviation agreement. Most of these schedule changes involve U.S. carriers adding new service to Heathrow Airport, so there

has been a related flurry of activity regarding Heathrow slots.

Some details are unconfirmed, but media reports suggest that the going rate for Heathrow slot pairs has rapidly increased to more than £30 million (US\$60 million) for peak-hour timings suitable for trans-Atlantic operations. U.S. carriers without close European partnerships have tended to pay the highest prices. Other U.S. carriers have pursued their European alliance partners to try to obtain Heathrow slots. And SkyTeam partners even coordinated a large reallocation of Air France and KLM slots. Coupled with additional slot purchases, this reallocation enabled SkyTeam, the alliance with by far the lowest share of Heathrow slots, to add the most new U.S. flights at Heathrow — 11 new daily roundtrips.

The fact that most U.S. carriers currently entering Heathrow have retained some operations at Gatwick Airport suggests a considerable amount of unmet demand for Heathrow slots and that there is continuing pressure to shift more U.S. flights to Heathrow over the long term.

Another pivotal step in incremental change is increasing alliance network linkages by adding hub-to-hub services. Even comparatively smaller U.S. hubs such as Salt Lake City, Utah, are participating. And while some of the new nonstop city pairs represent smaller local markets, all of the hub-to-hub routes nonetheless serve as important pipelines for connecting traffic by fully linking the partners' hub catchment areas.

In addition to the growth at Heathrow and in hub-to-hub flying, rapid growth is occurring in boutique, all-business-class trans-Atlantic flights. This growth actually started before the regulatory environment changed, but it could interact with and be influenced by the changes that result from the open-skies agreement.

Two approaches have emerged for all-business-class trans-Atlantic flights:

- Legacy-affiliated — Wet-lease flights operated on behalf of European network carriers,
- Discount-boutique — Independent carriers operating discount business-class flights in the U.S.-London market.

The legacy-affiliated model focuses on full-fare business travelers, featuring narrow-body aircraft operated by Swiss/German airline PrivatAir and marketed by European network carriers, linking major U.S. cities with top business centers in the European carriers' home countries. Normal business-class fares are charged. This approach focuses every revenue and cost advantage in markets with unusually high numbers of premium passengers.

On the other hand, the discount-boutique approach depends on access to a high-volume local market with a large segment of customers willing to pay more for comfort. Current operators offer independently branded premium-class seats in the U.S.-London market at a substantial



## E.U.-U.S. Open-Skies Agreement – Highlights

Element	Change	What It Means
Single E.U. market	E.U. replaces individual countries in bilateral negotiations with U.S.	Supercedes “Bermuda II” U.S.-U.K. bilateral Additional airlines allowed into LHR-United States
“Community Carrier” concept replaces airline nationality	Any E.U. airline can now fly from any E.U. country to the United States with full traffic rights	Air France can now fly London-Los Angeles nonstop
Traffic Rights: open skies now applies to all 27 E.U. countries	No restrictions on EU-US routes, frequency or capacity Unrestricted fifth-freedom rights Cabotage still prohibited Slot constraints still apply	British Airways still may not carry Chicago-Houston local traffic
Additional commercial changes	Codeshare	Unlimited between E.U., U.S., and third-country airlines American Airlines and British Airways may codeshare on trans-Atlantic flights
	Pricing	All restrictions on E.U.-U.S. routes removed Virgin America may start operations
	Franchising/branding	Now explicitly permitted Lufthansa German Airlines could operate Belgrade-Chicago nonstop
	Seventh-freedom rights	E.U. airlines gain full traffic rights to areas outside the European Union - European Common Aviation Area - Africa: 18 countries Virgin Nigeria may operate Lagos-Newark nonstop
	Wet leasing	E.U. airlines may wet lease to U.S. airlines for U.S.-international operations PrivetAir (Germany) could wet lease to American Airlines for New York-Stansted
	Cargo	Unrestricted seventh-freedom rights for E.U. airlines
	Competition	Applications for antitrust immunity expedited by the United States
Ownership	E.U. nationals owning U.S. airlines: - 25 percent cap on voting equity remains in place - 49.9 percent cap on total equity - 50 percent or more total equity possible subject to special U.S. approval - E.U. nationals still may not control U.S. airlines Reciprocal rules for U.S. nationals owning E.U. airlines E.U. ownership of airlines in ECAA or certain African countries would not jeopardize their U.S. traffic rights An ECAA-owned E.U. airline would be treated as if it were E.U.-owned	Mergers between E.U. and U.S. airlines are not possible at this time British ownership of Virgin Nigeria does not jeopardize its Lagos-Newark traffic rights
Regulatory Cooperation	Increased in many areas Joint committee established to interpret agreement	
Other	Provisions to increase reach of E.U. companies into U.S. market and vice-versa	

The E.U.-U.S. open-skies agreement enables any E.U. or U.S. airline to link any city in the European Union with any city in the United States and offers additional freedoms covering many commercial areas besides traffic rights. It represents a major change for the large U.K.-U.S. market, which was previously regulated by the restrictive Bermuda II bilateral.

discount from normal business-class fares, and they fly larger Boeing 757 or 767 aircraft.

Early experience suggests that all-business-class flights may be a specialized, fragile niche. Given the finite number of markets that meet either narrow set of criteria for the business models — perhaps only London, Paris, German business centers, and Zürich — there will be limits on how large these operations can become.

### Next Moves: Exuberant Experimentation

According to the classic pattern for market incursions, an innovative new entrant provides a stimulus to the incumbent. The incumbent responds. And the marketplace chooses a new equilibrium. Whether the new entrant is rebuffed or the incumbent cedes market share is often determined by whether the new entrant seeks to compete on a cost or revenue basis.

Southwest Airlines has historically been extremely successful competing on the basis of low costs. But there are fewer instances of new entrants competing for premium passengers.

In the case of boutique airlines making incursions into the E.U.-U.S. market, incumbents’ plans for responses are well under way. Virgin Atlantic Airways, a proven marketer, is prototyping an Airbus A319 for all-business-class trans-Atlantic service. British Airways has announced

## Countries Included In The E.U.-U.S. Open Skies Treaty



The new E.U.-U.S. open-skies aviation services bilateral applies to 27 E.U. countries and represents the biggest change for the 11 countries that did not already have open-skies bilaterals with the United States — 16 countries already had open-skies agreements with the United States. Many terms of the agreement also apply to nine nearby non-E.U. countries, which are part of the European Common Aviation Area.

plans for new all-premium flights from London City Airport to the United States. And American Airlines, a top player in the New York-London market, reinstated service to Stansted Airport, which is the U.K. base of Silverjet.

Outside of the boutique arena, plans are now underway for British Airways' new carrier "OpenSkies" to operate three-class Boeing 757s from New York to Brussels, Belgium, and/or Paris, France. At a minimum, OpenSkies could be a useful prototype for British Airways to fine-tune the platform for serving nearby, non-home markets.

Besides responding to the new all-business-class services and the startup of OpenSkies, other airlines are likely to keep adding capacity on trans-Atlantic routes. The market continues to experience double-digit revenue growth, and U.S. carriers continue to seek opportunities to export their unprofitable domestic capacity. In fact, it is possible that U.S. carriers have more economic incentive to add trans-Atlantic capac-

ity than European airlines. And U.S. carriers also have fewer capacity limitations, such as slots, at their home gateways.

Past experience is that enthusiasm for new freedoms and perceived competitive pressures often drive frenzied carriers to overindulge with their initial expansions. Then, over time, there is a retreat as successful approaches are expanded and loss-making services are pruned. Winners and losers are separated by the economic realities of the marketplace.

### The Match Continues: Survival of the Fittest

Some industry-watchers speculate that carriers will be tempted to invade one another's territories — for example, for Lufthansa to operate Heathrow-United States. But there are some natural limits that will influence the sustainability of such forays.

If a carrier exuberantly over expands, some new flights will be unprofitable, and the venerable Scottish financial theorist Adam Smith's "invisible hand" of economics will take over: over time, as losses mount, the carrier will be forced to withdraw those flights.

A few industry experts cite the concept of "supportable capacity" to describe what is sustainable in the marketplace. This paradigm holds that the amount of capacity a carrier can profitably deploy from a hub to a spoke depends on three factors:

1. The size of the local market in the hub,
2. The scale or size of the airline's hub operation,
3. The distance from the hub to the spoke.

The three factors combine to determine the amount of sustainable capacity: Local traffic provides an essential foundation of higher-yielding traffic. However, connection customers are needed to provide additional volume. And close hub proximity lowers many costs.

Based on these factors, airlines can expect to be economically penalized for certain longer flights and benefit from higher-frequency short-haul flights.

Market fundamentals related to the supportable capacity concept suggest that hubs, especially large hubs, tend to dominate their nearby neighborhoods. Just as a very large tree casts a long shadow and takes up moisture, nutrients and sunlight to deprive nearby seedlings of the chance to establish themselves, the "hub-neighborhood" effect makes it harder for a competitor to start services from a distant hub to points that naturally fall within another hub's "shadow" or catchment area — regardless of whether or not a route crosses country borders.

Due to the neighborhood effect, which is frequently demonstrated in borderless markets such as the United States, natural or "home" territories emerge for each hub. In the case of Europe, the neighborhood effect might be slightly less pronounced since hubs are somewhat smaller than in the United States, and there is a stronger preference for nonstop flights.

But two other phenomena could enhance the effect of home territories:

1. The S-curve effect of market presence,
2. Cultural preferences.

While the S-curve effect manifests itself as "city" presence in the United States and gives airlines an advantage in selling to customers originating in a hub or other city where the carrier has a large capacity share, in Europe there is a "country" effect. A European airline's home market usually includes the entire home country. Cultural dynamics may reinforce this effect.

The market fundamentals of supportable capacity and the neighborhood effect are not only very powerful but also they are independent of political boundaries. So even in a newly borderless market, they still apply. Home territories will still exist, making it more difficult for a smaller airline to invade a larger rival's backyard or for a hub to tap into a distant neighborhood.



Airlines will continue to need some point of real strength on at least one end of a route for that route to be viable, whether that strength derives from a network or a home territory.

After the first moves and early expansions, the dynamics of supportable capacity, neighborhood effect and home territories will determine which changes survive. Changes that play to a carrier's inherent strengths will have distinct survival advantages throughout the evolutionary period, while changes that amount to attempts to challenge intrinsic properties of airline economics will inevitably be eliminated.

### End Game: Finding Equilibrium

Overall, the trans-Atlantic market may at first be churned to an extent — but it will eventually find a new equilibrium.

The two-phase nature of the open-skies agreement leads to the possibility that there will be two separate balance points — the first representing the full extent of change possible under the Stage 1 treaty, and the second for Stage 2. The speed with which the industry converges to either of these points could be increased by economic shocks. Or the steady state for Stage 1 could be bypassed completely should Stage 2 be quickly agreed upon and implemented.

So the burning question clearly becomes: What will “equilibrium” look like?

Since regulatory influences have effectively been reduced through the open-skies agreement, economic factors can be expected to govern more strongly. The neighborhood effect will give larger hubs substantial advantages over smaller hubs. And over time, the gap between large and small airlines will grow.

In Europe, history has shown that although economically troubled airlines may shrink, they do not usually vanish completely. Additionally, while some smaller hubs may currently be overbuilt, they aren't likely to disappear altogether. In both of Europe's first major airline collapses, the end game was intercontinental growth opportunities for nearby rivals and regional opportunities for a smaller successor to the failed carrier.

The largest airlines can be expected to defend their neighborhoods, as slots permit. Situations such as Air France's entry to London-Los Angeles and a possible British Airways/OpenSkies venture into Paris-New York might represent a “checkmate.”

British Airways is even now matching U.S. carriers' moves of Gatwick flights to Heathrow to avoid what could otherwise quickly become a competitive disadvantage.

Whether and how much consolidation occurs on either side of the Atlantic could be strongly influenced by government regulation, antitrust policies, the intensity of economic stress on airlines, and the presence or absence of economic or geopolitical shocks.

Highly regarded industry analysts have long predicted further consolidation in the U.S. airline industry. However there were only two

mega-mergers between 2001 and year-end 2007: American-TWA and US Airways-America West. And recently, Delta Air Lines and Northwest Airlines have announced merger plans, but further major U.S.-airline merger proposals are moving haltingly.

Few if any of the possible U.S. airline combinations involve overlapping trans-Atlantic routes, so their effect on E.U.-U.S. flights could simply be to stabilize supporting U.S. networks.

Unlike the United States, where consolidation has meant direct merger with loss of one carrier's identity, the emerging model in Europe has the largest carriers such as Lufthansa and Air France using holding companies to manage acquired airlines such as Swiss or KLM as wholly owned subsidiaries. These examples created a useful template for possible subsequent cross-border mergers by preserving distinct cultural identities after a merger while still consolidating fundamental economics.

Just as several U.S. carriers might leap into merger action after a “triggering” event, the European industry is in some respects spring-loaded for consolidation. Given the high value of Heathrow slots and the creativity of deals to date, many possibilities could make economic sense if owners are inclined to deal.

And existing cross-ownership stakes might influence consolidation. For instance, if Lufthansa had proceeded to bid for Iberia, it might have been interested in the 10 percent stake owned by British Airways. British Airways, in turn, might have been interested in Lufthansa's 29.9 percent stake in bmi. SAS could have entered the picture, too, due to either its stake in bmi or in Spanair.

Lufthansa is strategically positioned as a potential kingmaker through its significant ownership stakes in leading carriers at the top two trans-Atlantic gateways — bmi at Heathrow Airport and jetBlue at New York's John F. Kennedy International Airport.

Because of the relatively higher cost structures of European versus U.S. airlines, it's hard to imagine traditional mergers such as Air France-Delta Air Lines combining to form a single company. It's easier to imagine U.S. carriers as subsidiaries of European airlines' holding companies. European carriers already own stakes in their key partners around the world.

A hypothetical British Airways-American Airlines combination would be formidable, with hubs in New York and at Heathrow — the most important gateways on each side of the Atlantic. With strong city presence in both New York and London, this combination would be well-positioned to compete vigorously with the U.K.-U.S. boutique airlines.

One of the most dramatic possibilities in the trans-Atlantic arena is the prospective entrance of a low-cost carrier. Several are well-positioned to do so: Ryanair from London's Stansted Airport; easyJet from London's Gatwick Airport; or jetBlue from John F. Kennedy International Airport. U.S. low-cost carriers could potentially serve as feed partners to a European low-cost carrier or

vice-versa, providing any new route “network strength” on both ends.

Taking into consideration the large local market sizes, the highly developed networks that low-cost carriers have built on each side of the Atlantic, a newly deregulated marketplace and the absence of any existing low-cost service, there could be high growth potential for low-cost carriers in the trans-Atlantic market. Perhaps the dense U.K.-U.S. market will be the launch point for such service.


In the end, the differences between Stage 1 and Stage 2 of the open-skies agreement may prove slight. Although only Stage 2 permits full control of U.S. airlines by E.U. nationals — and thus possible mergers between E.U. and U.S. carriers — Stage 1 does provide expedited review of requests for antitrust immunity, which is helpful for effective joint ventures. And Northwest and KLM have already demonstrated that joint ventures can function as “virtual” mergers.

While it is impossible to know the future, we can project an airline industry with even larger global carriers such as British Airways, Lufthansa and Air France-KLM each owning smaller regional airlines plus perhaps a few large carriers adjacent to their neighborhoods. Additional antitrust-immunized joint ventures are also likely. The future might also include fewer trans-Atlantic flights from smaller former flag carriers.

Many smaller markets will still have service, but some players might change, as in OpenSkies replacing Sabena in New York-Brussels. Competition among global carriers will remain fierce, as evidenced by the rush to add service to Heathrow. And low-cost carriers could provide relentless price competition.

There is some risk that negotiations over Stage 2 will deadlock and that this would call Stage 1 into question. But by then, it might be hard to turn back.

There are extremely high stakes on each side of the Atlantic. U.S. carriers will want to preserve access to Heathrow. And E.U. airlines will want influence over key sources of feed traffic in the United States. These factors — plus a generally higher level of business integration between E.U. and U.S. airlines — should create strong economic incentives on both sides to somehow resolve issues on a more permanent basis.

The multilateral game of chess will continue. And although its participants may be grouped into fewer and larger teams, their business strategies will still be highly sophisticated, and competition will remain strong. 

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