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Introduction

Americans have benefited immensely from 20 years of airline deregulation, but the U.S. air transportation market is still not fully open to competition. Repeal of controls on domestic air freight in 1977 and domestic air passenger markets in 1978 has resulted in lower fares, greater efficiencies, and wider choices in service. U.S. reforms have yielded the additional advantage of spurring deregulation and privatization in other countries, thus benefiting U.S. travelers flying on non-U.S. routes. Since 1979 the pursuit of bilateral "Open Skies" agreements to deregulate international routes has also brought consumer profits to selected markets, although progress here has been slower and more fragmented, and the resultant gains have been less immediate.

The U.S. air transportation market, however, is not truly open. Institutional constraints still exist and need to be lifted before the market can be considered fully competitive.¹ In particular, the U.S. market remains closed to competition from foreign carriers, which are denied cabotage, that is, the right to compete on routes between points within the United States. Under U.S. law, a foreign-owned carrier that flies into New York, for example, cannot pick up paying passengers and transport them to Chicago. In addition, the United States enforces cabotage restrictions by limiting foreign investment in airlines that operate domestic routes. Foreign shareholders cannot own more than 25 percent of the voting stock of a domestic airline, or more than 49 percent of equity under certain circumstances.

The protected domestic market is causing strains at home and abroad. The announcement in early 1998 of several new alliances between major U.S. carriers has prompted calls for closer federal monitoring of airline competition. Legislation introduced in April by Sen. Alfonse D'Amato (R-N.Y.) and Rep. Michael Forbes (R-N.Y.) would direct the secretary of transportation to investigate any alleged predatory or discriminatory pricing that could reduce domestic airline competition. The secretary would be given the power to block any

airline's policy or practice that supposedly restricts public access to "widespread, convenient, and efficient" air passenger service.² This concern for promoting competition stands in stark contrast to existing U.S. cabotage laws limiting competition.

Meanwhile, suitors from abroad are waiting at the gate to serve America's domestic air travelers. British entrepreneur and Virgin Atlantic Airways owner Richard Branson was involved in negotiations at the beginning of 1998 to launch a low-cost domestic airline based at New York's JFK International Airport. Branson envisions an airline that would offer domestic travelers a unique service at competitive fares, serving 10 U.S. cities with 20 new aircraft while providing feeder service for his transatlantic Virgin flights.³ Although initial capital of about \$200 million had reportedly been arranged, Branson pulled out because U.S. law does not allow a non-U.S. citizen to exercise a controlling interest in a domestic carrier. "Americans complain about the Japanese and their protectionism," Branson accurately noted. "Yet you still have these archaic rules that have no rational reason to exist in this day and age."⁴

Foreign airline owners are not the only critics of the protected U.S. market. A 1997 study by the Organization for Economic Cooperation and Development recommended that "restrictions on foreign ownership of airlines should be relaxed." The study concluded, "These restrictions can impede the long-term restructuring of the sector, restrict adequate financing, and (thereby) adversely affect the efficiency of airline services. Ownership can be used as a device to protect national carriers."⁵

The "archaic rules" Branson refers to are hindering the development of one of the U.S. economy's most important sectors. Air transportation provides essential services for business, provides access to a wide range of social and recreational activities, and conveys large quantities of high-value cargo. Air transportation, a major U.S. industry, accounted for \$63.2 billion of the gross domestic product in 1996.⁶ The Department of Commerce data do not include major spillover multipliers into sectors such as aircraft manufacturing and tourism

that raise air transportation's contribution to 6 percent of the GDP.⁷ International air transportation is an important and growing element in the U.S. balance of payments, directly contributing some \$6 billion in fare revenues.

Although the commercial power of the United States may be used effectively to remove some of the remaining barriers that require international bilateral agreement, ultimately a more coherent and principled approach is needed. To create a genuinely free global market in air transportation, the United States should adopt a consistent policy of liberalization by rejecting protectionism of any kind. If the United States wants to open the world market for its own carriers and travelers, it must open its market to the world.

The Unfinished Business of Deregulation

Until 20 years ago air transport was one of the most regulated sectors in any economy. Fares and frequency of service were strictly regulated and airlines were often state owned. That situation has changed dramatically in many countries since air transportation has often been at the vanguard of regulatory liberalization. Experience has revealed the clear and distinct advantages of freeing the air transport market from economic regulation. Although the resulting market arrangements, even where reforms have been the most advanced, do not entirely reflect economists' notions of perfect competition, they do reflect a high degree of workable competition. Existing markets may have some imperfections, but the theoretical benefits of removing those imperfections through regulation do not justify the increased administrative and other costs that would be imposed by new regulations.⁸

America's Domestic Deregulation

During the past 20 years remarkable progress was made in freeing both domestic air transportation systems and the international air transportation market from the maze of controls that had characterized air transportation since the end of World War II. The 1978

Airline Deregulation Act was a watershed. The act liberated the world's largest single air transport market from the constraints of pricing and capacity controls while providing policymakers a model of the benefits that competitive air transport markets can confer.⁹

The outcome for the U.S. domestic market was dramatic. In the decade after deregulation, passenger boardings rose by 55 percent, scheduled revenue passenger-miles grew by over 60 percent, and employment in the industry increased by 32 percent. Meanwhile, the real costs of travel fell by about 17 percent on the major routes, although by somewhat less on routes involving smaller markets.¹⁰ Deregulation has continued to yield benefits through its second decade, with air fares more than 20 percent lower in real terms since 1978 and total passengers carried up from 275 million to 600 million.¹¹ Air travelers have gained an estimated \$12.4 billion annually (in 1998 dollars) from lower fares and another \$10.3 billion from reduced travel time since passage of the 1978 Airline Deregulation Act.¹²

These economic gains were earned with no noticeable reduction in safety standards. Air transport is an exceptionally safe form of transportation, and the long-term trend for the probability of accidents per mile flown has fallen over time. In the 15 years before deregulation, the major U.S. airlines averaged one fatal accident per 830,000 flights; in the 15 years after deregulation, the airlines averaged one fatal accident per 1,400,000 flights—a drop in the fatality rate of 41 percent.¹³

The share of consumer benefits attributed to the 1978 Airline Deregulation Act is unknown. The analysis that is available, however, points to an enduring positive legacy from the 1978 reforms.¹⁴

EU Pioneers International Reform

As in the United States, air transport within and among European Union¹⁵ members 20 years ago was governed by regimes of strict regulation. International agreements between members generally limited services to a single designated air carrier from each, fares were fixed, capacity was predetermined, and rev-

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enues were pooled. Preference was inevitably given to state-owned carriers, many of them heavily subsidized.

The EU's direct involvement in developing a common aviation policy emerged in the late 1980s.¹⁶ Progress, though, was slow and uneven. The first important measures came in 1988,¹⁷ when limited pricing freedom was permitted and a phased relaxation of the normal 50-50 division of traffic on international EU routes was introduced.¹⁸ A second package of reforms initiated in 1989 essentially removed government-to-government capacity-sharing arrangements. The reforms also phased in the double disapproval of fares (meaning that the governments of both countries involved in a route had to object in order to overrule fares set by operators) and prevented governments from discriminating against airlines, provided that technical and safety standards were met. Ownership regulations were reformed, which made foreign participation easier. The granting of "beyond rights"—the right to fly from a point outside of the airline's home country to a point in a third country—became virtually automatic.¹⁹

The latest round of deregulation began in 1993, resulting in a regulatory framework similar to that prevailing in the U.S. aviation market. Cabotage was phased in, with "consecutive cabotage" introduced initially to enable an EU-based carrier to fly to a second destination within another EU country as long as the number of passengers on the second leg did not exceed 50 percent of the total on the international flight. With the phase-in complete, any EU airline can now fly between member states and between cities within member states without restriction. Foreign ownership of EU carriers is permitted, and carriers have, for EU internal purposes, become European airlines. One result of those changes has been a considerable increase in cross-shareholding and the rapidly expanding number of code-sharing and similar alliances among airlines within the EU.²⁰

Internal studies by the EU Commission confirm the success of those measures. The number of routes flown within the EU rose from 490 to 520 between 1993 and 1995, 30

percent of EU routes are now served by two operators, and 6 percent of EU routes are served by three operators. Since 1993, 80 new airlines have been created while only 60 have been dissolved; 90 to 95 percent of the passengers are now traveling at fares that are lower in real terms than they were in 1993. New market entry has been slower than had been anticipated, partly because some 50 percent of EU traffic is carried in the already liberalized charter market and partly because of continuing lack of capacity at many airports.²¹

Benefits in Other Markets

The Canadian market has also been deregulated, albeit in a less structured way.²² Liberalization has come in a series of ad hoc steps rather than through a master plan. The changes were to some extent forced on the Canadian authorities, as Canada's initially highly regulated carriers found it difficult to compete with the liberalized U.S. carriers serving parallel routes. The main carrier, Air Canada, has been privatized, and air services in the domestic market outside the sparsely populated northern regions are now provided in a commercial, market-based environment. Canada is ahead of the United States in one important area: it has commercialized its air traffic control system. The results have been lower fares and higher airline productivity.

Privatization and deregulation in Australia and New Zealand have created competitive industries that have resulted in lower fares for most users and more variety in the services offered. Post-deregulation fares, for example, fell by more than a third on the top 20 Australian interstate routes.²³

Wherever domestic airline deregulation has been enacted, it has resulted in more affordable and competitive service for the flying public.

The International Air Cartel

Despite the dramatic progress in deregulating major *domestic* airline markets, the *international* airline market remains in a regulatory time warp. In 1944 representatives from 52 nations met in Chicago in an attempt to pro-

duce a liberal multilateral agreement of the type favored by the United States at the time. The only widespread agreement was on the mutual exchange of rights outlined in the first two of the eight “Freedoms of the Skies.”

In the half century since the failure of the Chicago convention to produce a global agreement, international air transportation has been governed by a series of bilateral air service agreements between governments. The bilateral agreements take various forms, but traditionally most were modeled on the 1946 Bermuda I agreement between the United States and the United Kingdom.²⁴ Those agreements cover such issues as market access, routes, freedoms granted, capacity, flight frequency, and methods for resolving disputes. Many of the agreements are restrictive and emphasize protecting national air carriers. Some of the agreements include provisions whereby airlines pool revenues on routes. Because of antitrust regulations, the United States has never been a party to the more recent agreements.

The current system, containing some 1,200 bilateral air service agreements, the structure of which largely dates back to the 1940s, prevents the economies of hub-and-spoke operations from being fully realized in many markets. Presumably, international services cannot be efficiently provided in this system, and, because of network effects, inefficiencies can filter back into the domestic markets.

Piecemeal Open Skies

In contrast to the multilateralism the United States espoused at the Chicago Convention, it now favors a much less ambitious approach to international airline liberalization. In 1979 the United States initiated its so-called Open Skies policy by passing the International Air Transport Competition Act, which mandates that the U.S. Department of Transportation promote competition in international markets.²⁵ The Open Skies policy enables countries to negotiate bilateral agreements that essentially deregulate international travel between the United States and the other country. The typical agreement allows U.S. carriers to fly from the United States to any

Freedoms of the Skies

1st freedom. The right of an airline of one country to fly over the territory of another country without landing.

2nd freedom. The right of an airline of one country to land in another country for nontraffic reasons, such as maintenance or refueling, while en route to another country.

3rd freedom. The right of an airline of one country to carry traffic from its country of registry to another country.

4th freedom. The right of an airline of one country to carry traffic from another country to its own country of registry.

5th freedom. The right of an airline of one country to carry traffic between two countries outside of its own country of registry as long as the flight originates or terminates in its own country of registry (i.e., “beyond rights”).

6th freedom. The right of an airline of one country to carry traffic between two foreign countries via its own country of registry. This freedom combines the third and fourth freedoms.

7th freedom. The right of an airline to operate stand-alone services, entirely outside of the territory of its home state, to carry traffic between two foreign states.

8th freedom. The right of an airline to carry traffic between two points within the territory of a foreign state (i.e., “cabotage”).

point in the other country, with beyond rights and no restrictions on fares or frequency of service, while granting reciprocal rights to the other country’s carriers. The agreements usually include double disapproval of fares (which effectively restricts a government’s ability to reject commercially determined fares), freedom for airlines to set capacity, and multiple carrier designations with a reduction in route restrictions.

By 1982, 23 liberal bilateral agreements were signed as a result of the Open Skies policy ini-

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tiative. By the mid-1990s more agreements were signed, mainly with European countries,²⁶ and in 1995 a liberal bilateral agreement was signed with Canada.²⁷ In 1996–97, another set of Open Skies agreements was signed with 17 other countries.²⁸

The U.S.-Canada agreement has led to a significant increase in transborder traffic, which was up by 10 percent to 14.3 million passengers in its first year as seat capacity rose by 30 percent. Consumers benefited from 102 new transborder routes that offered many cities their first nonstop transborder services. The agreement also enabled U.S. airlines to develop integrated networks across the border, such as those established by American Airlines and Canadian Airlines International.²⁹

Trouble over the Atlantic and Pacific

Despite those developments, problems remain in Japan and Great Britain, the two largest overseas markets served by U.S. carriers. In each market, efforts to liberalize through bilateral negotiations have run into a thicket of problems.

Asian-Pacific routes were the subject of the Open Skies initiatives in the early 1980s and again in the late 1990s. Although the number of liberalizing agreements signed was impressive, several key countries, including Japan, did not reach an agreement.³⁰ That deadlock led to protracted discussion about reforming the existing system of agreements that dated back to 1952.

Japan is important in the Asian portion of any global network of services because of its location and market size. It currently generates 78 million domestic passengers and 11 million international passengers annually.³¹ Current technology does not enable aircraft to fly nonstop from the United States to many major Asian-Pacific destinations beyond Japan. Even if the ranges were extended, many of those markets would not justify frequent service. Japan is, therefore, a natural Asian hub for U.S. passenger and freight carriers serving the Asian-Pacific region.

In the late 1980s and most of the 1990s U.S. carriers (including major freight operators such as Federal Express, which wanted more capac-

ity through Japan to serve its operations in Subic Bay, the Philippines) pressed for more beyond-rights capacity. Japan, in contrast, believed that the 1952 agreement, which allowed unlimited rights for designated U.S. carriers beyond Tokyo and Osaka,³² was biased and was signed at a time when Japan had little political power.³³ Japan, seeking to rectify the imbalance in traffic, has frequently delayed necessary clearances for routes and services, which has led to regular bouts of diplomatic conflict.

Meanwhile, Japan has been slow to deregulate its domestic air transportation market, and its carriers tend to be expensive. One result of the rigidities in the system has been that fares in the Asian-Pacific area, when contrasted with those in the deregulated U.S. domestic market, have been some 28 percent higher than average U.S. fares per passenger-mile.³⁴

Little significant change occurred until January 1998, when the framework for a new accord was constructed. Essentially, this accord gives additional rights to Japan's second international airline, All Nippon Airways, and opens up the Japanese market to many other U.S. airlines. The beyond rights of Federal Express were extended. Although the agreement is not Open Skies, it does provide a degree of de facto liberalization and a more balanced basis for competition between the airlines involved. From Japan's perspective, the agreement offers greater opportunities for All Nippon Airways. If traffic growth matches predictions, however, a new crisis seems inevitable.

On transatlantic routes, some liberalization has taken place, but in key segments market forces are still restricted. U.S. carriers point to various impediments to free-market access.³⁵ While the United States has negotiated Open Skies air service agreements with many European governments, problems remain with the United Kingdom, France, Spain, and Italy, which together account for a large part of the total traffic.

France, Spain, Portugal, Greece, and Italy have state-owned airlines with a history of inefficiency and labor relations problems. National policy has been one of protection at

the cost of low productivity and high subsidies. Air travelers have suffered from high fares and limited service choice. These countries still have restrictive bilateral agreements with the United States.³⁶

Issues of reciprocity also exist. British Airways is a major transatlantic operator that in the past has had alliances with United and, more important, USAir (now U.S. Airways). British Airways, however, has never enjoyed antitrust immunity as have members of other major airline alliances such as Northwest/KLM and United/Lufthansa. Complicating the Open Skies negotiations is the issue of antitrust immunity for the proposed alliance between British Airways and American Airlines.

Other issues raised by the U.K. authorities concern allowing U.K. carriers to bid for contracts to carry U.S. government personnel, the implicit subsidies enjoyed by U.S. carriers under the Civil Reserve Air Fleet program,³⁷ restrictions on cabotage within the United States, and beyond rights through the United Kingdom into continental Europe.

Although lip service is paid to the goal of liberalizing the major international air transport markets, progress has been slow and halting.

America's Closed Skies

International air routes are not the only or even the most important markets where global competition has been stymied. The principal barrier remaining to a free and integrated global air transportation market is the inability of non-U.S. carriers to enter the American domestic market in direct competition with U.S. carriers.

The rationale for limiting market entry goes back to the 1920s and maritime transport. The Merchant Marine Act of 1920, commonly known as the Jones Act, requires that cargo moving between U.S. ports be carried on vessels that are built in the United States and owned and crewed by Americans. The purpose of the act was to promote the growth of a well-equipped and modern merchant marine for use in the nation's defense and for increasing

its foreign and domestic commerce. The result, however, has been declining traffic and higher costs for consumers.³⁸

Just as the Jones Act has been impervious to reform, so too have cabotage restrictions in the domestic airline industry. In 1991 the then secretary of transportation, Samuel Skinner, warned against reform, telling *Washington Flyer Magazine*, "Some people would argue that cabotage is the long-term solution for increased competition in the airline industry. Right now there are no programs within this department to change the law to allow foreign airlines to participate in the domestic route structure. We've got to take some steps to make sure that we're looking at the issues. You've really got to walk before you can run. And that would be a very dramatic step. . . . I don't think it's on the short-term agenda. It's maybe something that we can look at in the long-term."³⁹

Seven years later, with the cost of domestic airline protection growing more apparent, the time has come to place it on the agenda. In a speech in September 1998 to an airline deregulation conference in Washington, D.C., the Department of Transportation's assistant secretary for aviation and international affairs, Charles A. Hunnicutt, endorsed "establishing a single, open worldwide aviation market." Hunnicutt implicitly criticized existing rules, in the United States and in other countries, that stand in the way of realizing that goal. Chief among them are "restrictions that are placed on the free flow of capital in the industry, including, in particular, substantial existing government controls over foreign investment in national airlines," and rules that "prohibit foreign airlines from carrying traffic moving exclusively between points in another nation's territory," that is, cabotage.⁴⁰

Domestic Distortions

Restrictions on capital and cabotage, like restrictions imposed on coastal maritime shipping, shield U.S. domestic air transportation from the full rigors of the international marketplace. One of the major distortions of the protected U.S. airline market is to deny foreign-owned carriers the full benefits of the

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hub-and-spoke system. Many of the benefits derived from domestic deregulation have stemmed from the freedom carriers have to funnel traffic through their hub airports. When contrasted with the former, bureaucratically governed series of uncoordinated linear services, the hub-and-spoke system has reduced costs by reaping economies of scale for travelers who gain from the lower fares and the wider choice of services and routings open to them.

International services depend on feeder services to and from major gateway airports. The inability of foreign carriers to transport U.S. passengers and cargo to and from U.S. gateways reduces their efficiency and, as a result, the efficiency of competing U.S. carriers. Denying cabotage to foreign carriers deprives American travelers of the convenience and savings derived from a truly open domestic market.

Limitations on foreign investment in U.S. airlines also distort the air transport industry. The important role of external finance was seen in 1989 when the Dutch carrier KLM essentially saved Northwest from bankruptcy, and in 1993 when British Airways assumed a 44 percent, \$400 million equity holding in USAir during the U.S. carrier's financial difficulties. Because the holdings and the governance of the investors were limited by U.S. law, it is possible that the investment levels were not optimal and a larger involvement might have been more efficient. The limitations imposed on voting shares vis-à-vis the financial investments also distort incentives and constrain participation.

In a robust economy, when the demand for air travel rises, the presence of foreign-based carriers in the U.S. domestic market will keep downward pressure on fares and protect consumers from possible price collusion. During recessions, an open domestic market could save some U.S. carriers from bankruptcy by enabling them to draw on a larger, international pool of investment capital. An open domestic market would also allow for a more rational consolidation of the global air transport industry, eliminating overcapacity and inefficient

duplication of services. As with other sectors of the economy, international competition would have a stabilizing effect, moderating the feast-or-famine swings that have typified America's closed domestic air travel market.

Open Skies Hypocrisy

By shielding its own domestic market from competition, the United States has weakened its case for international air transport liberalization. The U.S. government preaches the blessings of open markets and competition abroad, while maintaining the largest protected domestic market in the world. Under such a policy, the Open Skies approach can be interpreted simply as a political marketing device to open markets where U.S. operators have a comparative advantage while protecting domestic markets from full competition.⁴¹ Genuine economic deregulation requires open access to the entire air transportation market, including cabotage.

The European domestic liberalization along the lines of the U.S. domestic liberalization has left the United States vulnerable to the charge from Europe that their common market is now open while the U.S. market is closed. Europeans have rightly complained about the U.S. double standard.

A typical complaint is expressed by Richard Branson, owner of the British-based Virgin Atlantic Airways: "The U.S. government does not want to allow Virgin to carry U.S. passengers between New York and Los Angeles, though it clamors about the consumer benefits in allowing American [Airlines] to carry local traffic from London to Paris." Branson notes that the U.S. government allows Europeans to build automobile manufacturing plants in South Carolina and music megastores in New York. "Why shouldn't Virgin, or any other U.K. corporation or citizen, have the right to own and operate a U.S. domestic feeder carrier?" Branson asked.⁴² In the past, executives of the German carrier Lufthansa have publicly voiced similar complaints.⁴³

America's closed skies have proven to be a stumbling block in liberalizing the huge U.S.-U.K. transatlantic market. Britain has been

understandably cool to U.S. insistence that any Open Skies agreement between the two nations include a guarantee of beyond rights for U.S. carriers. To British negotiators, no difference in principle exists between the right of U.S. carriers to fly to London and beyond to points in continental Europe and the right, so far denied, of U.K. airlines to carry passengers between points in the United States. In an official paper released in September 1998, the U.K. government made the opening of U.S. skies to foreign competition a precondition for progress. "We wish to see the liberalization of transatlantic services, our largest aviation market outside the EU. However, such liberalization must be on the basis of fair competition, including effective access to the large U.S. market,"⁴⁴ the Labour government said.

The same closed policy that has denied American travelers the fruits of full competition at home has denied them the full benefits of open and competitive markets abroad.

Alliances: Solution or Stopgap?

Markets are nothing if not flexible, and second-best methods of coping with some of the restrictions of cabotage and foreign ownership rules have emerged. Although the problems that remain are costly to the economy, at least these activities have offered some relief. Foreign and domestic carriers have developed mechanisms for circumventing the lack of cabotage and other rights, by creating airline alliances. In some cases those alliances generate arrangements that appear to be fully efficient, but without a full market test there is no way of telling when this is so.

Alliances are always in a state of flux. The exact number of existing alliances is unclear, not only because of the dynamic nature of the arrangements but because the term "alliance" has no precise definition. Alliance can mean some degree of equity ownership of one carrier by another, but more often it means code-sharing agreements, interchangeable frequent flyer programs, and coordinated scheduling of services. Airlines are often involved in many alliances embracing a single partner, but

alliances may involve several carriers. Linkages among several major carriers into "galaxies" are increasingly common.⁴⁵ Keeping pace with the composition and specific arrangements of governing alliances is almost impossible. Table 1 provides an indication of their importance.

Most alliances involve code-sharing arrangements. By adopting a common code for their flights, airlines can supply a more comprehensive network of services than they can provide independently. A strong form of code sharing involves blocked space arrangements whereby one carrier buys space on another airline's aircraft, which it then sells under its own name and designator code. Code shares are also strengthened when airline schedules are coordinated. Franchising is another form of alliance growing in international markets.

An annual survey by *Airline Business* tracks these major alliances and reports changes in some of their main features. For 1998 it recorded 502 alliances globally, up 38 percent from 363 alliances the previous year. The data are not definitive. *The Economist*, for example, recorded 401 alliances in 1995,⁴⁶ double the number it estimated four years earlier. The overwhelming conclusion, though, is that the number of airline alliances is large and increasing continually.

The reason for this growth is that alliances enable airlines to operate more efficiently and profitably.⁴⁷ A study by Gellman Research Associates found that the USAir/British Airways and the Northwest/KLM alliances generated benefits for the airlines involved and for the passengers.⁴⁸ USAir/British Airways and Northwest/KLM increased their market shares on code-sharing routes by 8 percent and 10 percent, respectively. For British Airways, this increase represented \$27.2 million of additional net revenue, and for USAir, \$5.6 million. Annual estimated benefits from the strategic alliance were \$16.1 million for Northwest and \$10.6 million for KLM.

In theory, airline alliances go far toward alleviating the problems caused by America's closed domestic market. The existing legal framework in the United States, however, prevents alliances from being fully exploited, so

America's closed skies have proven to be a stumbling block in liberalizing the huge U.S.-U.K. transatlantic market.

Table 1
The Main Strategic Alliances (in August 1997)

Airline	Revenue (U.S. \$ million)	Fleet	Employees	Revenue Passenger- Kilometers
Star Alliance	46,166	1,450	232,432	407,499
United	16,362	564	85,900	221,856
Lufthansa	13,841	314	57,999	81,716
SAS	5,252	161	23,607	19,487
Air Canada	3,579	136	19,868	30,718
Thai Airways	3,097	73	22,136	29,226
Varig	2,963	81	18,119	23,664
Others	1,072	121	4,803	832
Continental Group	24,143	865	116,232	183,993
Air France	10,980	205	49,682	57,471
Continental	6,360	433	38,700	67,452
Alitalia	5,064	126	16,850	34,556
America West	1,740	101	11,000	24,514
Delta Group	23,519	982	95,709	186,776
Delta	12,465	589	60,289	141,599
Swissair	6,646	62	14,135	23,573
Others	4,408	331	21,285	20,604
Northwest/KLM	17,672	661	83,173	175,833
Northwest	9,881	399	47,536	110,461
KLM	5,952	111	26,358	50,399
Others	1,839	151	9,279	14,973
American / BA Group	45,370	1,368	247,103	399,803
American	17,753	649	111,300	172,678
BA	13,247	256	58,210	102,304
Qantas	5,766	141	29,627	54,627
Iberia / Aviaco	4,291	142	24,176	28,631
Canadian	2,270	79	13,228	25,284
Others	2,043	101	10,562	16,279

Northwest bought 15% of Continental equity in 1998 and has entered into an alliance with the airline.
The American/ BA alliance is still awaiting legal approval.
Source: *Airline Business* (London).

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they are a "second-best" solution. In particular, restrictions on foreign investment limit the ability of U.S. carriers to merge with non-U.S. airlines.

Even short of full merger, the amount a non-U.S. company can invest in a U.S. carrier is limited and, as a consequence, so are its voting rights. This limitation does not mean that in certain instances code-sharing or scheduling arrangements may not be optimal. However, in other instances more integrated structures could be more efficient. For example, constraints on ownership restrict the type of orga-

nization an alliance could become, limit the type of management structure that it could adopt, and restrain the ways in which finances could be allocated.⁴⁹

Even with code-sharing arrangements, the inability of foreign carriers to use their aircraft for U.S. domestic services can result in suboptimal use of fleets. Aircraft lie idle between international flights, which can also adversely affect the composition of fleets. As with other forms of market protection, consumers pay for these inefficiencies through higher prices and stunted competition.

Objections to Foreign Competition

Given the economic costs at home and abroad of denying cabotage to foreign-owned carriers, and the second-best nature of alliances, why does the U.S. market remain closed? The answer lies in misplaced fears and faulty assumptions about the effects of global competition. The major objections raised to opening the U.S. air transportation market echo many of the arguments against free trade, openness, and globalization in general.

“Lack of Reciprocity”

One frequent argument against granting cabotage to overseas carriers is that no comparable reciprocal agreements exist that could give U.S. carriers the same access to foreign markets. Why should the United States open its internal market when virtually no other nation grants cabotage to foreign carriers in its domestic markets? This argument fails to appreciate the unique and dominant nature of the U.S. domestic air travel market and the potential benefits of greater competition within that market.

America’s domestic air travel market is like no other in the world. Although the United States accounts for only about 4.5 percent of the world’s population, 27.5 percent of the world’s scheduled airline passenger-miles are flown between points within the United States.⁵⁰ In other words, the U.S. market represents more than one-quarter of the world’s market for airline travel. Thirteen of the world’s 20 busiest airports, and half of the top 50 airports, are in the United States.⁵¹

No other domestic air travel market in the world comes close to matching the U.S. market. The next three largest domestic markets, Russia, Japan, and China, are each less than 10 percent the size of the U.S. market as measured by passenger-miles. It makes no economic sense for the United States to deny itself the benefits of more competition in its domestic market just because other nations with much smaller markets have denied themselves the same benefits.

The only other single market that comes close to matching the size of the U.S. domestic market is the European Union. Like the United States, the European Union does not allow non-EU investors to acquire a controlling interest in an EU carrier, nor do any EU member states grant cabotage to non-EU carriers. Because of liberal bilateral agreements signed with a majority of EU members, however, U.S. carriers can use their beyond rights to offer service between a number of EU cities—thus enjoying a limited form of cabotage within the EU market.

Given this disparity between the U.S. and EU markets, reciprocity could prove to be a double-edged sword. If the United States were to demand that its carriers be granted cabotage within individual EU nations, the EU could counter with a demand that its carriers be granted the same access to the U.S. domestic market that U.S. carriers now have to the integrated EU market. If not, the EU could plausibly threaten to withdraw internal access if the United States maintains its closed market.

In the aviation market, as in all others, trade is not about reciprocity but about comparative advantage. If non-U.S. carriers can offer services within the United States at lower costs than local airlines, then U.S. resources are freed up to be deployed in sectors where the United States has an advantage. This rationale applies to air transport markets just as it does to any other market unrelated to aviation. The United States should not deny its citizens the benefits of specialization through trade simply because consumers in other countries are denied those benefits by their governments.

“National Security”

Another misplaced fear is that opening the U.S. market will cause widespread dislocation and a decline in the U.S.-owned air fleet. Such an occurrence could have national security implications because of the possible need for the government to enlist the domestic commercial fleet in time of war.

The possibility that foreign competition could decimate the U.S. civil air fleet is remote. Because of 20 years of domestic deregulation,

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U.S. carriers are very competitive providers. The Comité des Sages report of the European Union, for instance, found that in 1992 the overall operating costs per air traffic mile of EU carriers were about 48 percent higher than those of the major U.S. carriers, although there is evidence that the gap is closing.⁵² Removing cabotage restrictions would enhance competitive pressures without causing any major decline in the size of the U.S. air fleet.

Even if the U.S.-owned fleet were somewhat smaller because of foreign competition, there is no inherent reason why foreign-owned carriers would not be willing to allow the U.S. government to use their planes in time of war. Virgin Atlantic CEO Richard Branson has already agreed that, if allowed to compete in the U.S. market, Virgin will abide by U.S. law that allows the U.S. military to use the company's aircraft during a national emergency.⁵³ The U.S. government would also retain the option of leasing planes in the international market. As a voluntary incentive, U.S. law could be changed to allow U.S. government personnel to fly on any airline, whether U.S. or foreign owned, that has agreed to lend its planes to the U.S. government in time of need.

“Unfair Competition”

Many non-U.S. carriers have traditionally received either direct subsidies or implicit subsidies (similar to those the U.S. commercial airline fleet receives through its customary monopoly rights to carry U.S. government personnel). Allowing such carriers to enter the U.S. market may be seen as initiating unfair competition. Although this argument has some validity as U.S. airlines may sometimes be at a disadvantage, the levels of subsidies being awarded by foreign governments to their airlines are falling. Also, from U.S. consumers' perspective, there is little reason to complain if a foreign government willingly pays part of their costs of transport. In fact, any such subsidies would very rapidly dry up.

Other forms of anti-competitive activity, such as predatory pricing, are likely to be reduced by having more competition in the U.S. market. Concerns about the inability of

new U.S. carriers to enter the domestic market have resulted in proposals, such as the bills introduced this year by Senator D'Amato and Representative Forbes, for new regulations to limit aggressive price reductions by incumbent carriers. The aim of the legislation is to limit the ability of an airline to lower fares or increase service when confronted by a new competitor. The critical flaw in this approach is the difficulty of defining sensible criteria that do not limit genuine commercial strategies or impose delays and high transactions costs. Enhancing competition by removing cabotage restrictions offers a nonbureaucratic way of handling alleged predatory pricing issues. If the U.S. market were open to global competition, a predatory pricing strategy would be virtually impossible.

Foreign-owned carriers serving U.S. domestic routes would not be able to cut corners on safety regulations. The same Federal Aviation Administration rules governing pilot qualifications, airplane maintenance, and operating procedures could be written to cover all domestic airline operations, regardless of the nationality of the majority owners. The proper regulatory regime should be one of nondiscrimination. All domestic flights, whether originating within the United States or overseas, should be required to meet the same safety standards.

Opening America's Skies

A truly open U.S. market would allow foreign-owned air carriers to offer service between American cities, not merely to and from foreign destinations. An open market would allow non-U.S. carriers either to acquire a controlling interest in domestic U.S. carriers or simply to carry paying passengers from one U.S. city to another on foreign airlines' planes. Americans would have the option, for example, of flying from Chicago to New York or from Dallas to Los Angeles on non-U.S.-owned airlines competing directly with the major U.S.-owned carriers. The result would be more competition, lower fares, and more choice in schedules and type of service, especially when flying to international destinations.

Removing the cabotage restrictions and relaxing the rules concerning outside ownership of airlines in the United States have the potential for generating many important benefits for the U.S. air traveler and the U.S. economy as a whole:

First, enhanced competition would drive down prices to reflect marginal costs rather than the market power of suppliers. This competition clearly benefits consumers. The importance of this competitive pressure in the U.S. domestic market has been amply demonstrated by the changes in fares and fare structures that low-cost carriers such as Southwest Airlines have brought about.⁵⁴ These smaller carriers offer a package of services that are different from those offered by the major carriers.

The announcement in recent months of three proposed domestic alliances has raised antitrust concerns that domestic competition may suffer at the expense of consumers. The most prominent alliance would be between United Airlines, the nation's largest carrier, and Delta, the third largest carrier. Together, they represent 34 percent of domestic air traffic. Another proposed alliance, Northwest Airlines and Continental Airlines, represents 16 percent of domestic air traffic. A third possible alliance, American Airlines and US Airways, is more tentative and would represent 25 percent of air traffic. If fully realized, those three alliances would carry three-quarters of the nation's internal air traffic, a prospect that has spurred calls for intense scrutiny by federal antitrust officials.⁵⁵

A domestic market open to foreign competition would greatly reduce any possibility of monopoly or oligopoly pricing power. If domestic alliances were to raise prices above those of a competitive market, foreign carriers could rush in for a slice of the profits, underbidding fares and forcing prices back down to a competitive level. This reservoir of foreign competition, not the antitrust bureaucracy in Washington, would be the ultimate protection for consumers of air travel services.

Second, a more efficient and market-driven hub-and-spoke system would generate cost savings for carriers and provide more attractive

service options for travelers. Restrictions on cabotage and foreign ownership can limit the extent to which the full potential of hub and spoke can be realized. Granting cabotage would permit the fuller integration of U.S. domestic operations with international activities. It would permit more natural markets to emerge that are not dominated by political boundaries.

Third, enhanced competition not only reduces static managerial inefficiencies but also acts as a spur to technological and organizational developments. The 1978 Airline Deregulation Act, for example, not only spurred the creation of hub-and-spoke operations and removed less efficient carriers from the market, but also stimulated innovative pricing, electronic ticketing, and popular forms of loyalty bonuses. Opening U.S. skies to foreign-based carriers would promote further innovation.

Fourth, the airline industry would have access to a deeper capital market. This access is especially important because the international airline market is a volatile one. Despite the current high levels of profit gained by U.S. airlines, they still may not have learned the lessons of the late 1980s and early 1990s when record losses were incurred. Permitting foreign ownership and greater equity participation can help to spread risk across markets.

Finally, opening the domestic market to global competition would remove a major obstacle to global airline deregulation. The United States would be in a stronger position to remove foreign barriers through bilateral or multilateral negotiations or through unilateral liberalization in foreign markets. The United States would no longer appear to be pursuing the mercantilist agenda of opening markets abroad while protecting markets at home.

Conclusion

Air transport markets have changed dramatically over the past 20 years and largely for the public good. The changes have been interactive, with regulatory reforms accompanying technical and market developments. The trend toward liberalization outside the United States

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continues albeit at different rates and in different ways according to location. The U.S. government's Open Skies policy is one element in this trend, but it needs to be developed further. In particular, U.S. policy should recognize that air transport serves a global market and that the traditional notion of domestic and international air transport has ceased to serve any useful purpose.

Seen in their broader context, cabotage restrictions are essentially capital controls imposed on an important sector of the economy. Although the United States generally encourages the free flow of capital, it restricts the amount of capital that can flow into the domestic airline industry. As a result, U.S. restrictions on foreign ownership of domestic airlines more closely resemble the foreign investment policies of India than those of a dynamic market economy setting the standards for global competition.

Congress should open the U.S. domestic air travel market by repealing all restrictions on foreign ownership of U.S. domestic airlines. That means allowing foreign investors to own a controlling share in a domestic airline, not just a minority interest of 49 percent or less.⁵⁶ As an interim measure, Congress could allow majority foreign ownership with a minimum domestic participation of 10 to 25 percent. Along with freedom of investment, foreign carriers should be allowed to serve U.S. domestic routes as feeders to and from their international flights in the United States. Again, as an interim measure, Congress could grant consecutive cabotage that allows limited service between U.S. domestic points. Whatever its form, the aim of any airline cabotage reform should be to move the United States decisively toward complete openness to foreign capital and services.

Opening American skies to global competition would offer high returns with little risk. It would enhance the efficiency of supply within the U.S. market and of services provided internationally. It would also silence many of the complaints of non-U.S. carriers that U.S. airlines enjoy de facto cabotage in markets like those of the EU because of the beyond

rights they expect as part of the Open Skies agreements.

Removing controls over cabotage and foreign ownership would stimulate competition, thus promoting innovation by putting downward pressure on fares and virtually eliminating any antitrust concerns about collusion and predatory pricing. The domestic industry would be on a more solid financial footing, with access in good times and bad to a larger pool of capital. For American air travelers, opening U.S. skies to global competition would yield a greater choice of carriers and lower fares, both at home and around the world.

Notes

1. The inability of foreign carriers to operate within the United States is perhaps the most obvious constraint. Competition is also seriously limited by the lack of economic pricing of airport slots and other facilities. Non-private-sector ownership of most air transport infrastructure (including airports and air traffic control) does not lead to optimal capacity provision or use. See General Accounting Office, *Domestic Aviation: Barriers to Entry Continue to Limit Benefits of Airline Deregulation*, GAO/T-RCED-97-120 (Washington: GAO, 1997); and General Accounting Office, *Domestic Aviation: Barriers to Entry Continue to Limit Benefits in Some Domestic Markets*, GAO/T-RCED-98-112 (Washington: GAO, 1998).
2. Representative Forbes' bill, H.R. 3704, "Consumer Access to Travel Information Act of 1998," was introduced on April 22, 1998. Senator D'Amato's companion bill, S. 1977, was introduced on April 23, 1998.
3. Del Jones, "Brit Wants U.S. Right of Way: CEO of Virgin Seeks Congress' OK to Start Airline," *USA Today*, September 24, 1998.
4. Quoted in Laurence Zuckerman, "Virgin's Chief Battling Law on Ownership of U.S. Airlines," *New York Times*, June 17, 1998.
5. Organization for Economic Cooperation and Development, *The Future of International Air*

Transport Policy: Responding to Global Change (Paris: OECD, 1997), p. 19.

6. U.S. Department of Commerce, *Survey of Current Business* 77, no. 11 (November 1997): 28, Table 7.
7. Wilbur Smith Associates, *The Economic Impact of Civil Aviation on the U.S. Economy, Update '93* (Columbia, S.C.: Wilbur Smith Associates, 1995).
8. S. H. Sosnick, "A Critique of Concepts of Workable Competition," *Quarterly Journal of Economics* 62 (1958): 380–423. See also National Commission to Ensure a Strong Competitive Airline Industry, *Change, Challenge and Competition* (Washington: Government Printing Office, 1993).
9. Although 1978 represented the initiation of key legislative reform, de facto changes had been taking place since 1976 when the Civil Aeronautics Board adopted a less restrictive approach to fares and market entry.
10. G. James, "Overview: the Pre- and Post-deregulation U.S. Airline System," Paper presented at Transportation Research Board Annual Meeting, Washington, 1988.
11. John E. Robson, "Airline Deregulation: Twenty Years of Success and Counting," *Regulation* 21, no. 2 (Spring 1998): 18.
12. Steven A. Morrison and Clifford Winston, *The Evolution of the Airline Industry* (Washington: Brookings Institution, 1995).
13. See Air Transport Association, *Airline Handbook*, <http://www.air-transport.org/handbk/chaptr06.htm> (Washington: ATA, 1998). It is unclear whether this impressive safety record is due to regulation or to the commercial pressures on airlines to retain credibility as safe carriers in the commercial marketplace. See K. J. Button, "Interactions of Global Competition, Airline Strategic Alliances, and Air Traffic Safety," in H. M. Soekkhha, ed., *Aviation Safety: Human Factors, System Engineering, Flight Operations, Economic Strategies, and Management* (Utrecht, Netherlands: VSP, 1997).
14. An attempted assessment of long-term impact is found in Appendix A of U.S. Department of Transportation, Bureau of Transportation Statistics, *Transportation Statistics Annual Report 1996* (Washington: U.S. DOT, 1996). The evidence indicates that the efficiency of the industry has continued to grow.
15. The title European Union is a comparatively new one, and terms such as European Community or European Communities preceded it. For simplicity of exposition, however, European Union and EU will be used throughout.
16. K. J. Button and D. Swann, "European Community Airlines: Deregulation and Its Problems," *Journal of Common Market Studies* 27 (1989): 259–82.
17. D. Vincent and D. Stasinopoulos, "The Aviation Policy of the European Community," *Journal of Transport Economics and Policy* 24 (1990): 95–100.
18. Commission of the European Communities, *Completing the Common Market*, COM(85)310 Final (Brussels: CEC, 1992). See also K. J. Button and D. Swann, "Transatlantic Lessons in Aviation Deregulation: EEC and U.S. Experiences," *Antitrust Bulletin* 37 (1992): 207–55; and K. J. Button, "The Liberalization of Transport Services," in D. Swann, ed., *1992 and Beyond* (London: Routledge, 1992).
19. D. Stasinopoulos, "The Second Aviation Package of the European Community," *Journal of Transport Economics and Policy* 26 (1992): 83–87.
20. D. Stasinopoulos, "The Third Phase of Liberalization in Community Aviation and the Need for Supplementary Measures," *Journal of Transport Economics and Policy* 27 (1993): 323–28.
21. Commission of the European Communities, *Impact of the Third Package of Air Transport Liberalization Measures*, COM(96) 415 Final (Brussels: CEC, 1996).
22. K. J. Button, "Liberalizing the Canadian

Scheduled Aviation Market: The Gradualist Approach to Deregulation," *Fiscal Studies* 10 (1989): 19–52.

23. P. Forsyth, "Air Liberalization, Privatization and Consolidation in Australia and New Zealand," *Built Environment* 22 (1996): 192–200.

24. Bermuda II, signed in 1977, introduced a more restrictive structure to the U.S./U.K. bilateral agreement of 1946 and has been adopted in some of the more recent bilateral agreements.

25. This policy followed the Civil Aeronautics Board's show cause order to the International Air Transport Association member airlines that dramatically reduced the role of the IATA as a price cartel.

26. This activity followed a new U.S. Department of Transportation policy statement, "U.S. International Air Transportation Policy Statement," 1995. Agreements signed in 1995 were with Switzerland, Sweden, Norway, Luxembourg, Iceland, Finland, Denmark, Austria, Belgium, and the Czech Republic.

27. The U.S.-Canadian bilateral agreement, which is called an "Open Transborder Agreement," differs somewhat from the standard U.S. Open Skies bilateral air service agreement.

28. Agreements were reached in 1996 with Jordan and in 1997 with Singapore, Brunei, Chinese Taipei, Panama, Guatemala, El Salvador, Honduras, Costa Rica, Nicaragua, New Zealand, Malaysia, Aruba, Chile, Romania, and the Netherlands Antilles.

29. M. W. Tretheway, "Canada-U.S. Open Skies," in C. Findlay, C. L. Sien, and K. Singh, eds., *Asia Pacific Air Transport* (Singapore: Institute of Southeast Asian Studies, 1997).

30. D. Knibb, "Same Old Story," *Airline Business*, August 1995, pp. 42–45.

31. Japanese Ministry of Transport, *Kohku Tokei Yoreu* (Aviation Statistics Summary) (Tokyo:

Ministry of Transport, 1997).

32. These rights were originally granted to Northwest and Pan American, but the latter's rights were subsequently bought by United Airlines. One of the main problems U.S. officials face during bilateral negotiations is lobbying by carriers. The officials seek compromises on two fronts—between airlines and with other governments—which usually leads to less-than-optimal outcomes.

33. These beyond rights have been estimated to be worth up to \$1.6 billion per annum with projected values of between \$4 billion and \$5.6 billion to the U.S. passenger airlines. See "Inequities on Both Sides," *Avmark Aviation Economist*, November 1995, pp. 2–4.

34. Morrison and Winston.

35. General Accounting Office, *International Aviation: DOT Needs More Information to Address U.S. Airlines' Problems in Doing Business Abroad*, GAO/T-RCED-95-24 (Washington: GAO, 1994).

36. A new U.S.-French Bilateral Agreement in April 1998 has resulted in increased flight frequencies and routes, but these are still limited and are being phased in.

37. The Civil Reserve Air Fleet program is designed to provide the U.S. military and federal government with the necessary aircraft capacity to meet national and international emergencies. The airlines agree to provide this capacity for various tax and other concessions.

38. The International Trade Commission estimates that the Jones Act costs the U.S. economy \$2.8 billion annually. See U.S. International Trade Commission, "The Economic Effects of Significant U.S. Import Restraints: First Biannual Update," Publication 2935, December 1995, section 5, pp. 4–5.

39. Quoted in Brian Cook, "Post Cards" column, *Washington Flyer Magazine*, March/April 1991, p. 87.

40. Charles A. Hunnicutt, Remarks before the Deregulation Summit, Washington, September 23, 1998.
41. The Open Skies policy is not an entirely free market. See R. Doganis, "The Bilateral Regime for Air Transport: Current Position and Future Progress," in Organization for Economic Cooperation and Development, *International Air Transport Policy: The Challenges Ahead* (Paris: OECD, 1993).
42. Quoted in Ben Wildavsky, *National Journal* 28, no. 40 (October 5, 1996): 2108.
43. "Lufthansa Chairman Criticizes U.S. Open Skies Policies," *Aviation Europe* 3, no. 26 (July 1, 1993): 2.
44. U.K. Department of Environment and Transport, "A New Deal for Transport: Better for Everyone," The Government's White Paper on the Future of Transport, Publication no. 3950 (London: Her Majesty's Stationery Office, 1998), p. 103.
45. This type of strategy dates back to the Global Excellence alliance formed in 1989 by Swissair, Singapore International Airlines, and Delta.
46. "Airline Alliances: Flying in Formation," *The Economist*, July 22, 1995, pp. 50–60.
47. For a survey, see M. Dresner, S. Flipcop, and R. Windle, "Trans-Atlantic Airline Alliances: A Preliminary Evaluation," *Journal of the Transportation Research Forum* 35 (1995): 13–25.
48. Gellman Research Associates, *A Study of International Airline Code Sharing* (Washington: Department of Transportation, Office of Aviation and International Economics, 1994).
49. J. Gallacher, "Bow to No Man," *Airline Business*, August 1996, pp. 32–35.
50. International Civil Aviation Organization, *Annual Civil Aviation Report* 52, no. 6 (July–August 1997): 18.
51. International Air Transportation Association, *World Air Transport Statistics*, no. 41 (June 1997): 14.
52. Comité des Sages for Air Transport, *Expanding Horizons: Civil Aviation in Europe—An Action Program for the Future* (Brussels: Commission of the European Communities, 1994).
53. Jones.
54. See R. D. Bennet and J. M. Craun, "The Airline Deregulation Evolution Continues: The Southwest Effect," Paper prepared for the U.S. Department of Transportation, 1993.
55. "Virtual Mergers, Regulatory Headaches," *Avmark Aviation Economist*, May 2–8, 1998.
56. The proposed 1998 Federal Aviation Administration Reauthorization bill (S. 2279) contained language directing the Department of Transportation to study the economic impact of raising the ceiling on foreign-owned voting shares to 49 percent. The bill failed to pass in the 105th Congress.

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