

Impacts of Global Alliance and New Large Aircraft on Airlines and Competition and Traffic Flow Patterns

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Impacts of Global Alliance and New Large Aircraft on Airline Competition and Traffic Flow Patterns

Outline

(A) Effects of Liberalization and Open Skies

(B) Global Strategic Alliances and Impacts

(C) New Large Aircraft (NLA) and Impacts

(D) Combined Impacts of Alliance, Liberalization and NLA

(E) Summary and Concluding Remark



Effects of Liberalization and Open Skies: *Consensus Research Results*



- ◆ Liberalization/Open Skies increase **number of direct service routes**; especially so in the cases of inter-continental liberalization like the proposed EU-US open skies
- ◆ **Increase Consumer Choice:** Liberalization increases **number of ways of traveling between most O-D pairs (consumer choice)** by increasing international routes; Thus, reduces average size of aircraft used
- ◆ **Competition: increased competition, lower average fares, and further stimulates traffic**



Expanded flight routing under the proposed EU-US Open Skies Agreement

After: Airlines provide service from other EU countries



Example:
Air France
also flies
London to Newark,
Rome to Atlanta



Effects of Liberalization and Open Skies – cont'd

- ◆ **Traffic increase:** Despite the increased int'l routes, the increased competition leads to **increase in all O-D pair traffic**.
- ◆ **Carriers:** Routes offering the most attractive travel cost and options will attract more passengers than other routes. Traffic volumes on some routes may be reduced. More competitive carriers benefit greatly at the expense of non-competitive airlines.
- ◆ **Consumers** benefit greatly due to the increased travel routing options and competition; Clearly, the overall welfare gains occur since consumer benefits dominate the welfare calculation.
- ◆ **Mergers and Open Skies:** Open skies can help ease competition issues when mergers like **AF-KLM occur**.



Desirable Direction for Asian Airline Markets



- ◆ **Asian airline networks are very inefficiently structured** as most airlines has a single hub network.
- ◆ There are clear economic advantages for the Asian major carriers to create efficient multiple-hub network covering the Asian continent (certainly in East Asia).
- ◆ There is a need to create much freer air transport markets in Asia; like EU, and North America. It is important for East Asian countries (China, Japan, Korea, and other countries) set up **a permanent organization within which the necessary negotiations are carried out for creating a freer trade and transport sub-continent.**





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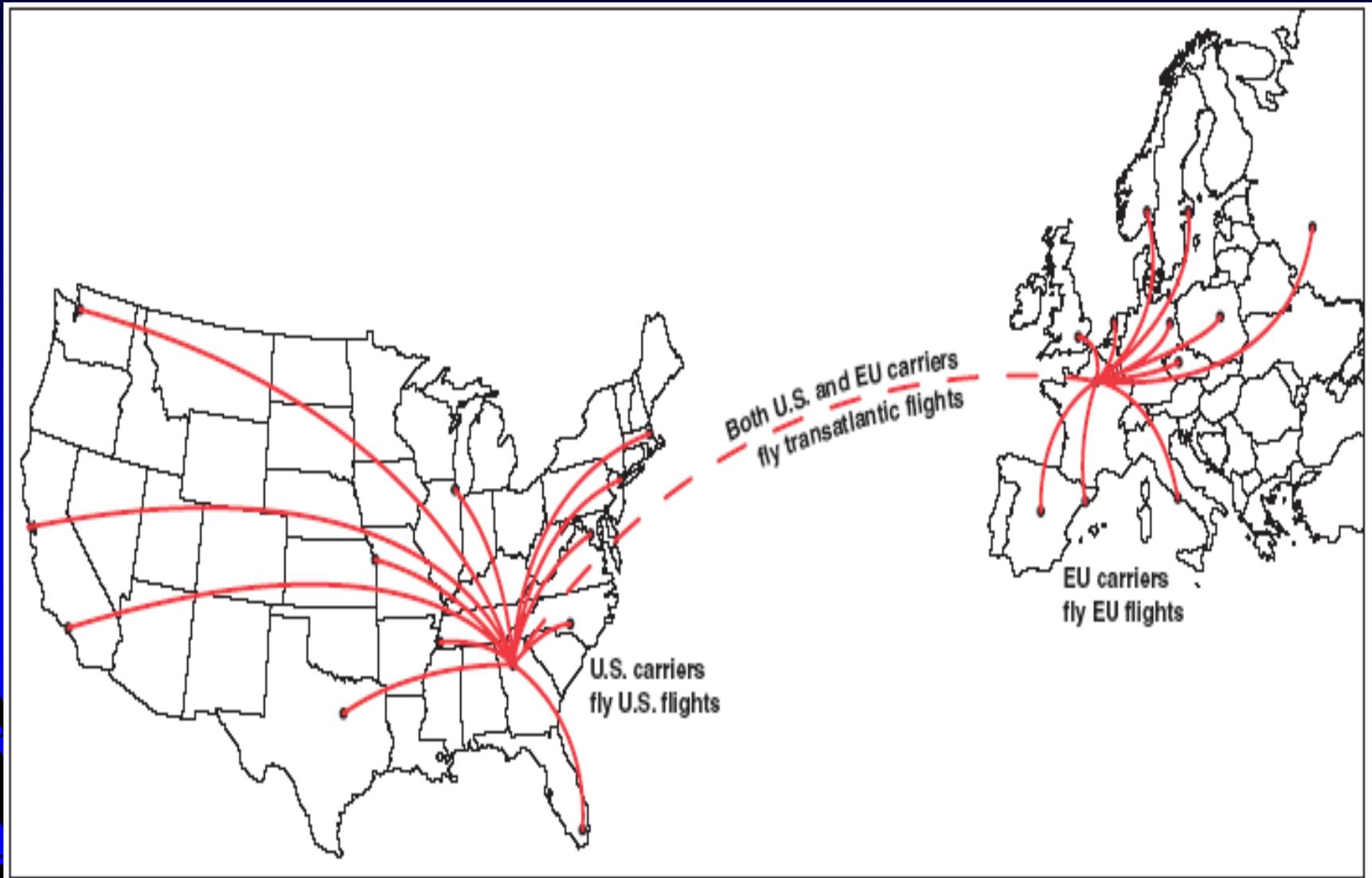
Global Strategic Alliances



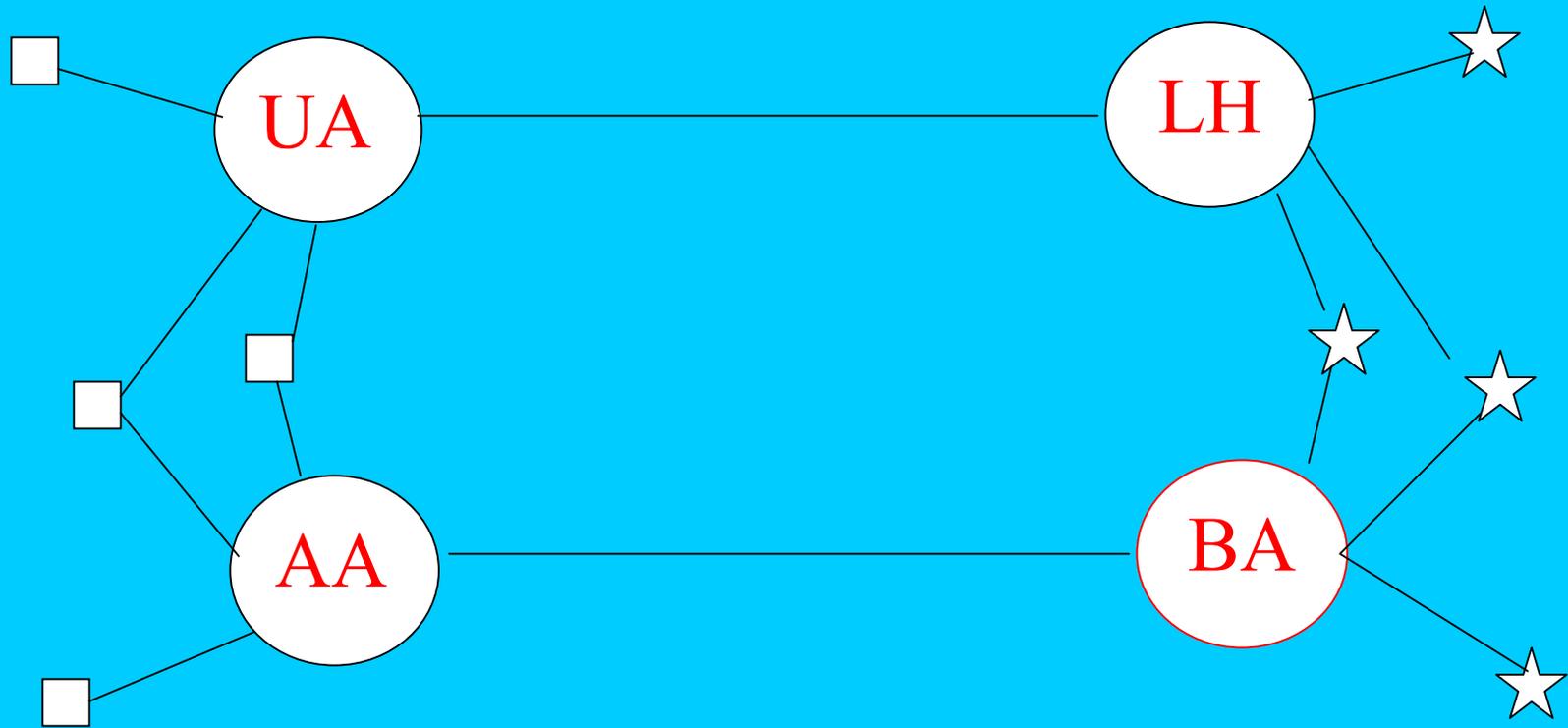
- ◆ Liberalization of air transport and formation of continental open skies blocs created incentives and external environment for major airlines to form strategic alliances to create intercontinental and global service networks since mid-1990s.
- ◆ Star alliance, Sky Team, One World
- ◆ **Competition between global alliance networks has intensified**



Illustration of Intercontinental Alliance Network



Source: GAO.



Competition between global alliance networks



Global Alliances Networks

ONEWORLD

Aer Lingus
American
British Airways
Cathay Pacific
Iberia
Finnair
LanChile
Qantas
Swiss

SKYTEAM

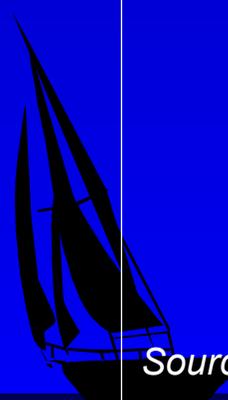
Aero Mexico
Air France
Alitalia
Continental
CSA Czech Airlines
Delta
Korean Air
KLM
Northwest

STAR

Air Canada
Air NZ
ANA
Asiana
Austrian
bmi
LOT Polish Airlines
Lufthansa
SAS
Singapore Airlines
South Africa
Spanair
TAP Portugal
Thai Airlines
United
US Airways
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Solo

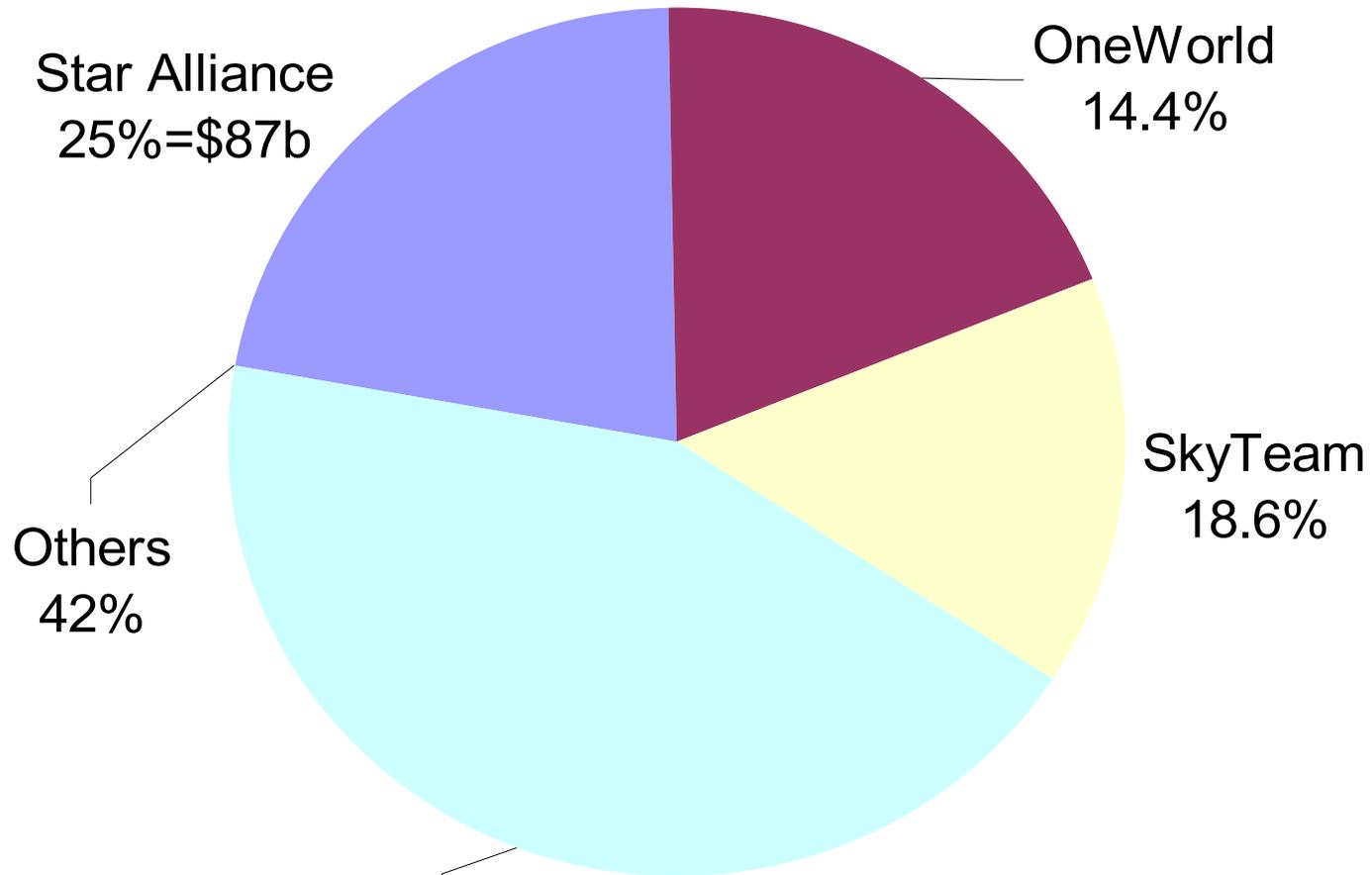
JAL
Aeroflot
Virgin Blue
Air China
China Eastern
China
Southern
Malaysian
Siewers;



Source: *Airline Business*, Sep., 2004

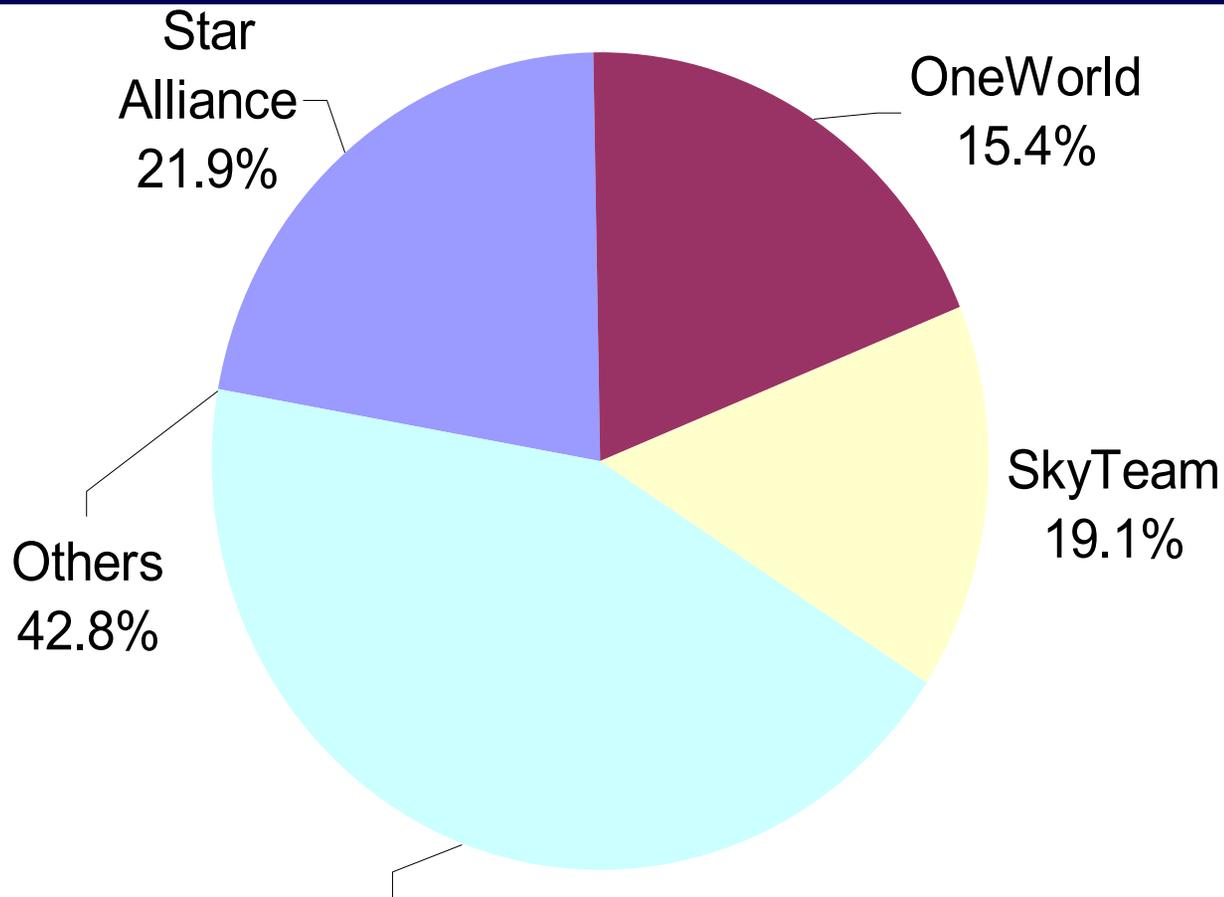
Global Alliances' Market Shares

(Revenue, 2003)



Global Alliances' Market Shares

(RPK, 2003)



Effects of Strategic Alliances on Carriers



Marketing & Sales Improves:

- ◆ Being able to sell over global networks
- ◆ Expanding passengers' itinerary options
- ◆ Improved connecting services
- ◆ To serve behind/beyond points passengers via partner's hub
- ◆ increased flight frequency and improved services
- ◆ improved value of FFP

Complementary network alliances increase passenger volumes significantly (e.g. 9.7% improvement, Iatrou & Skourias, 2004);

Cost Saving:

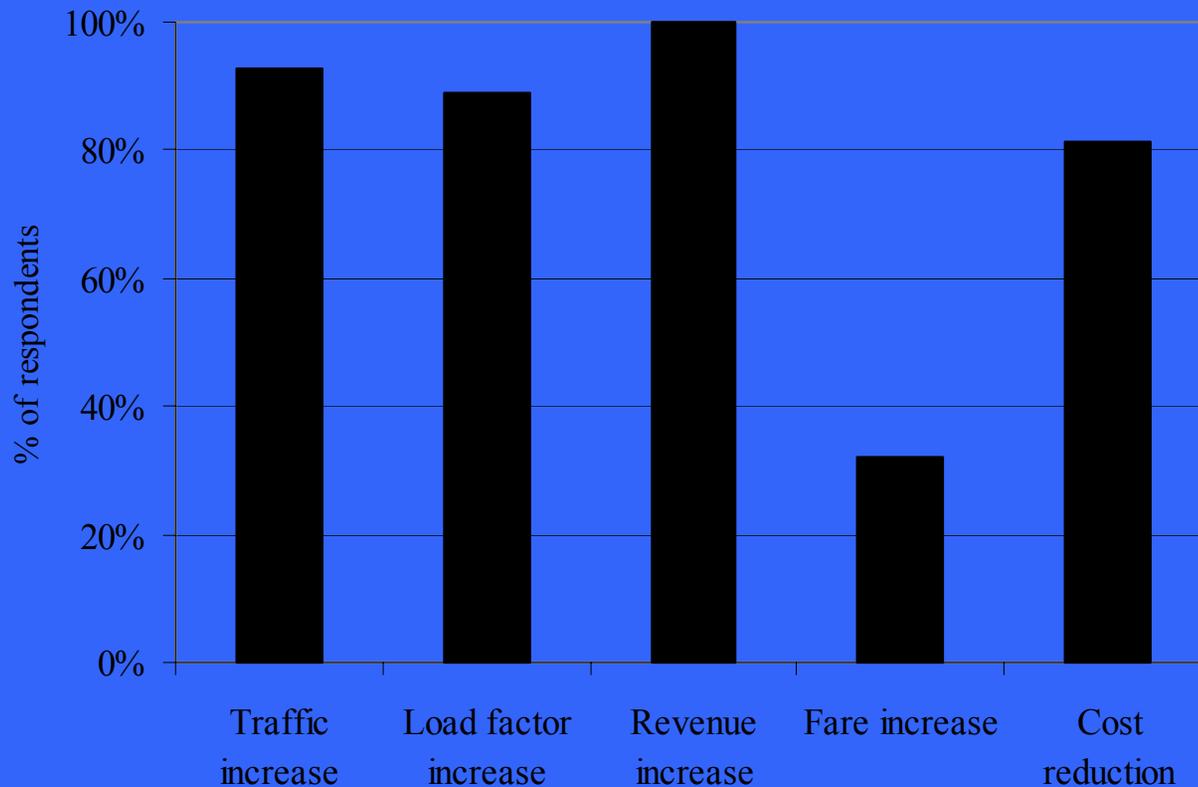
- ◆ Joint use of facilities
- ◆ Joint purchase (fuel and other supplies-Star Alliance)
- ◆ Hub-to-Hub linkage intercontinentally
- ◆ Etc.

Most Alliances stay “Strategic” only in name; ie. have not proceeded with deeper integration beyond Code Share, FFP coordination, joint use of facilities and joint purchase.



Benefits Stated By Partner Airlines Participating in Four Global Strategic Alliances:

(source: Iatrou and Alamdari, JATM 2005)



Effects of Strategic Alliances on Markets and Consumers

- ◆ **Traffic stimulation** due to improved service quality, frequency, expanded travel itineraries;
- ◆ **Lower fares for connecting passengers;**
But there are some cases in which carriers exercising market power after gaining anti-trust immunity
- ◆ **Complementary network alliances expand markets substantially**
- ◆ Overall, improve **consumers benefits** substantially



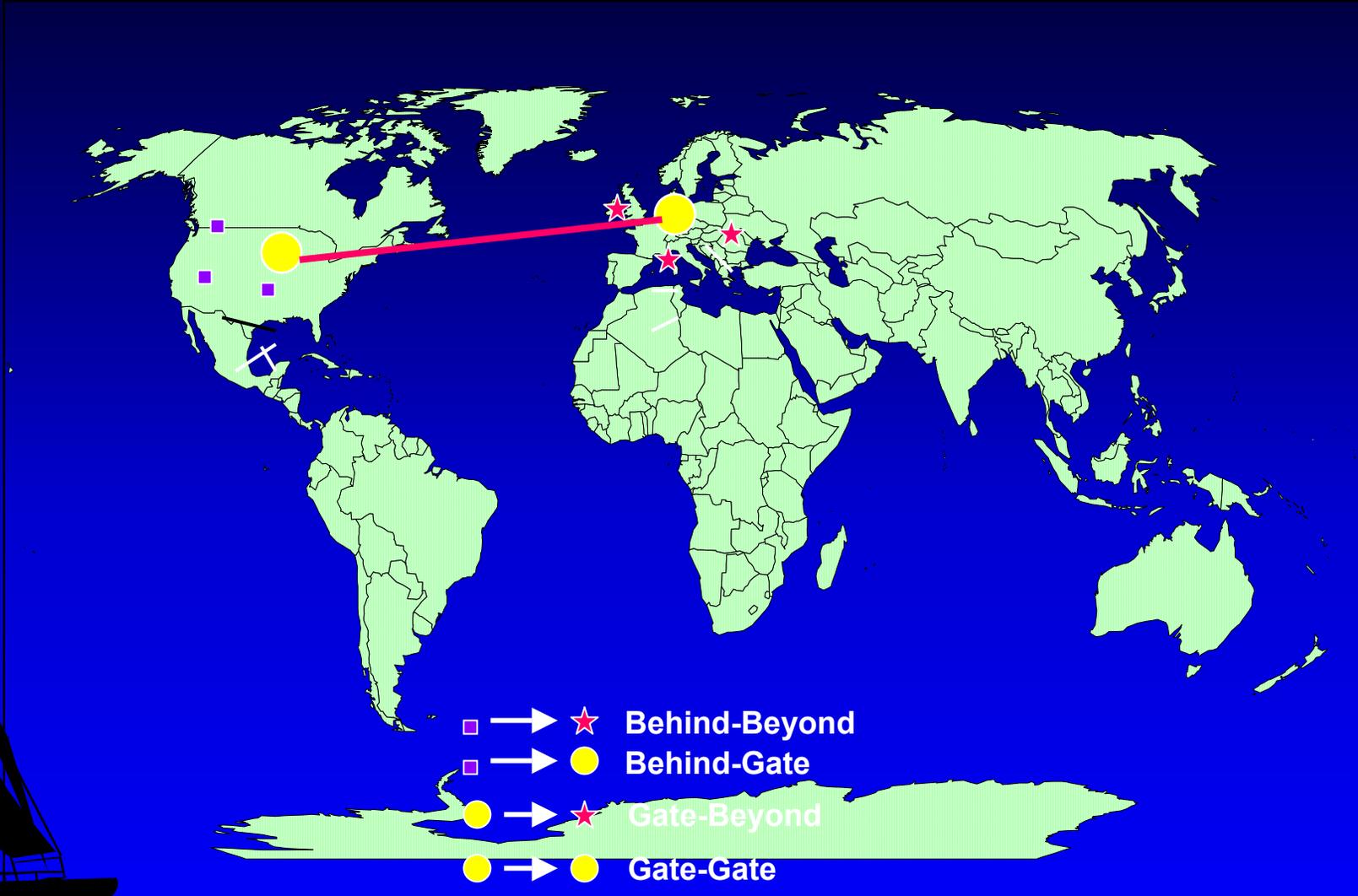
ALLIANCE EFFECTS ON TRAFFIC FLOW PATTERNS



- ◆ Strengthens Hub-Hub operations at both ends of the continents;
- ◆ **Tremendous increase in connecting traffic** thanks to lower prices and improved quality of connections.
- ◆ Traffic volumes on all non-stop North Atlantic alliance routes have improve significantly more than on non-alliance routes



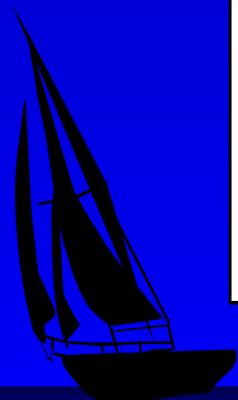
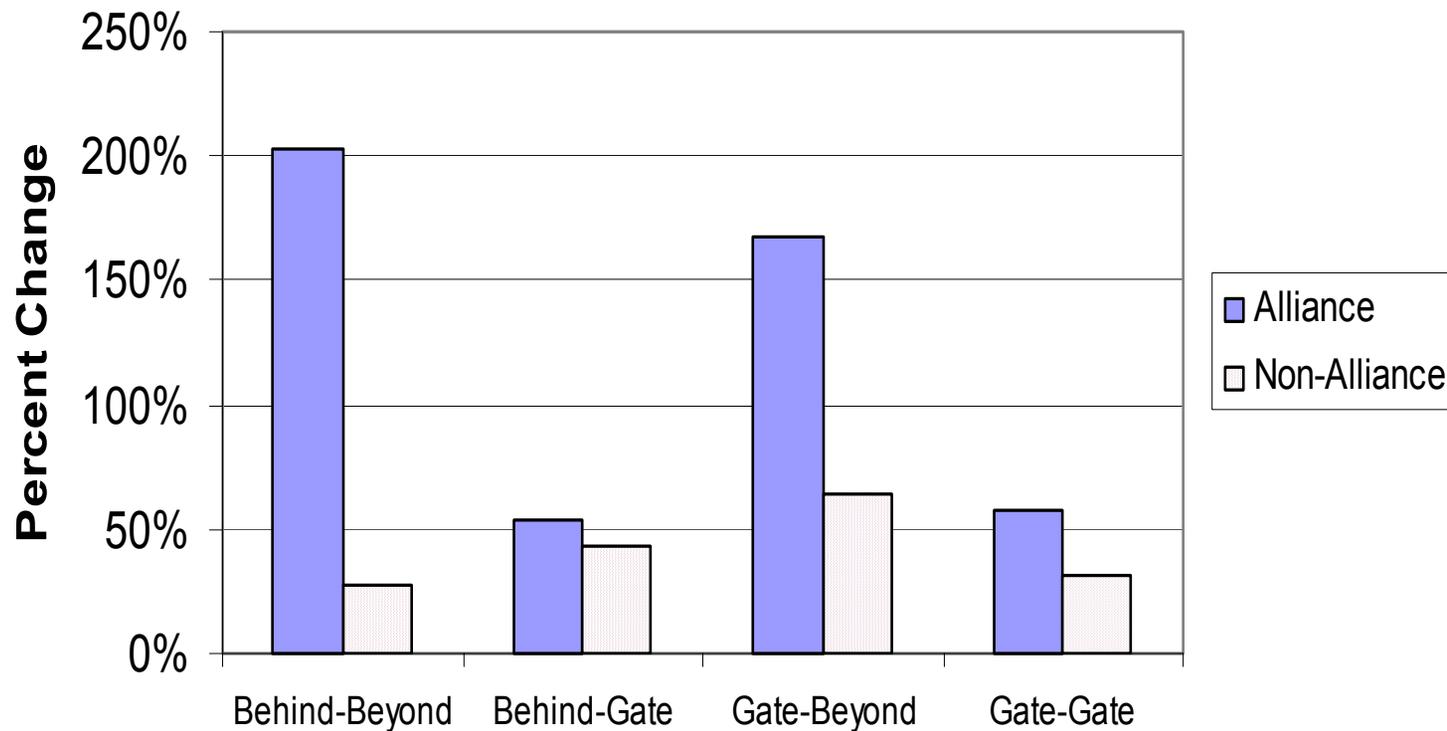
Types of Markets



*Alliance carriers enjoy highest traffic increase
in Behind-Beyond Markets: US DOT (Dec, 1999)*



**US-Europe Traffic, Percent Change 1992-1999
US Alliance vs Non-Alliance Carriers**





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Economics of NLA

(A) Factors favoring NLA:

- ◆ Long distance AND high density routes
- ◆ Intercontinental Strategic Alliance help pool traffic between two major carriers linking Hub-Hub;
- ◆ Airports with scarce landing/takeoff slots ???
- ◆ ATC and airside congestion ???

Etc.





(B) Factors NOT Favoring NLA:

- ◆ Many airports not well equipped to handle NLA (Burns & McDonnell report; ACI; FAA reports);
 - Runways, Taxiways, other airfield accommodation – Design Group VI standards
 - Terminals and Gates
 - Room on the Ramp (15m wider wingspan)
 - Upper-deck gates and jet bridges
 - Runway-taxi way separation for new Category 6 aircraft
 - Cost estimates for 14 airports: \$2.1 billion; Airbus counters it is \$520 million: GAO (Feb, 2002; GAO-02-251)
- ◆ ATC – need longer separation standard for landings and takeoffs



Economics of NLA



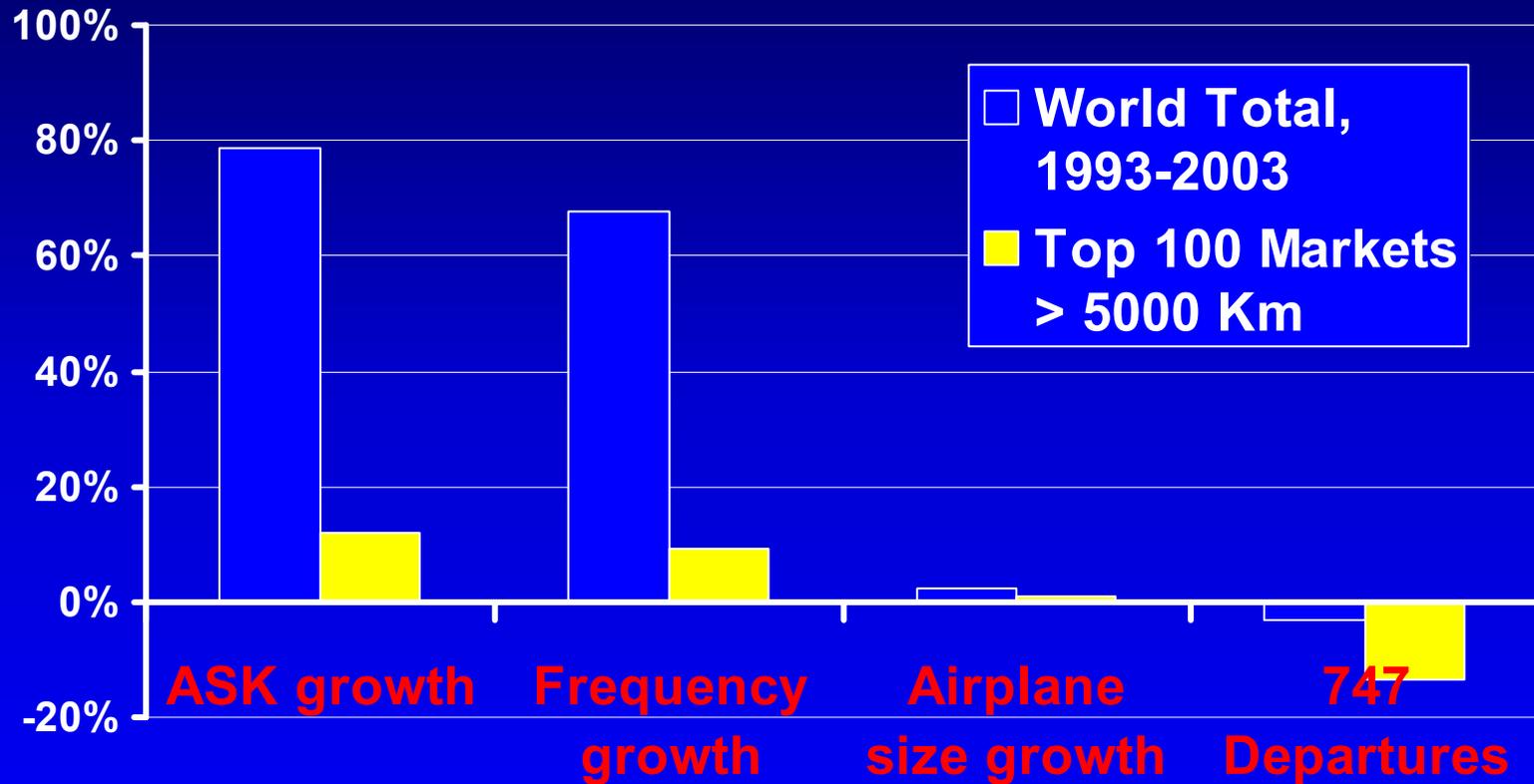
- ◆ **Rising preference for direct flights and hub bypassing** and the increasing cost of connecting time;
 - Value of non-stop services:
 - \$35 (\$20-\$50 range) in the US domestic markets
 - \$100 (\$75-\$125 range) in the North Atlantic markets
 - These values continue to rise with income

- ◆ **Top 100 routes are not growing** because bypass flying diverts traffic

- ◆ **Average aircraft size on the top 100 routes have been reduced over time**

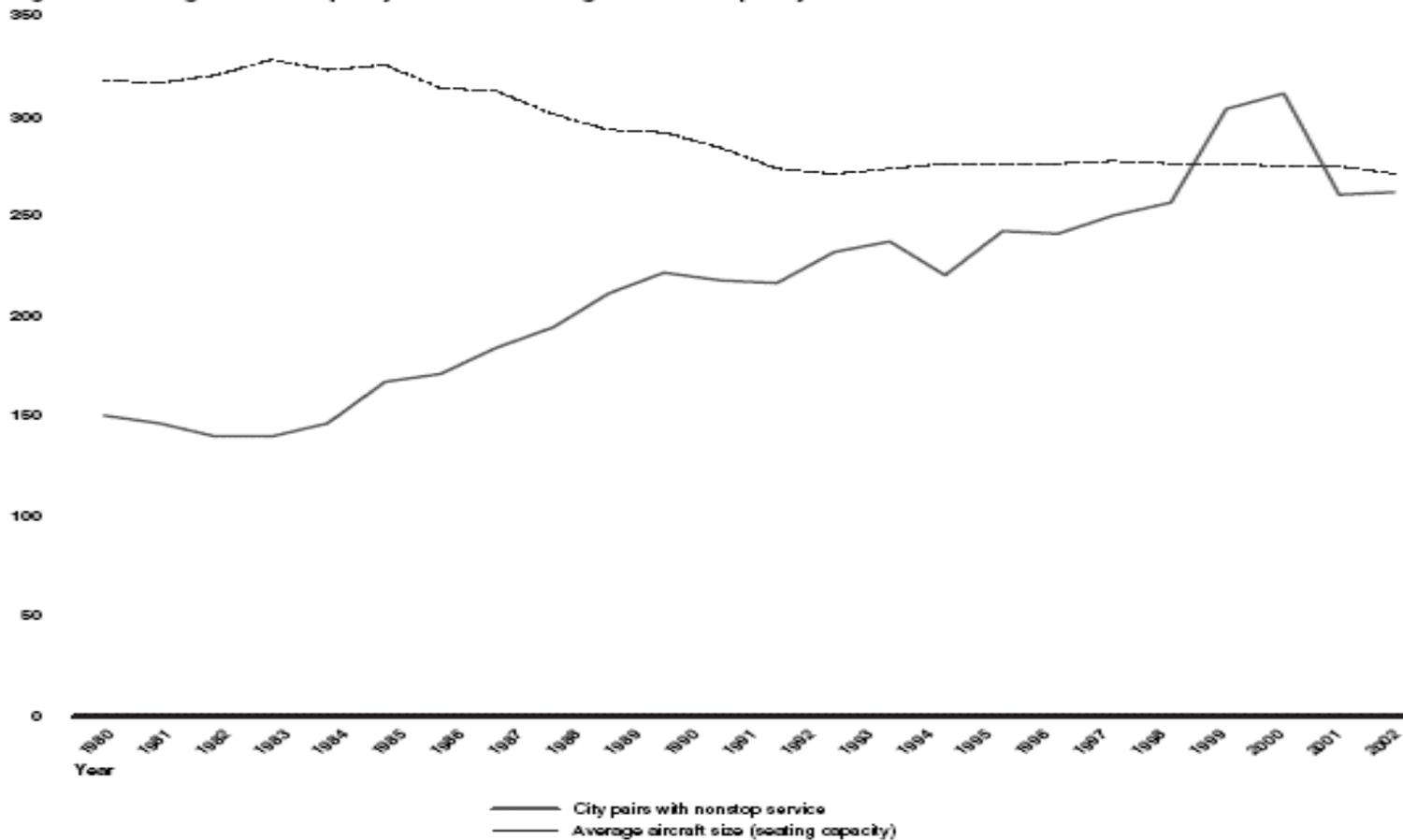


Top 100 Markets are Not Growing as bypass flying diverts traffic



Increase in Non-stop city pairs and reduction in average aircraft size across the N. Atlantic

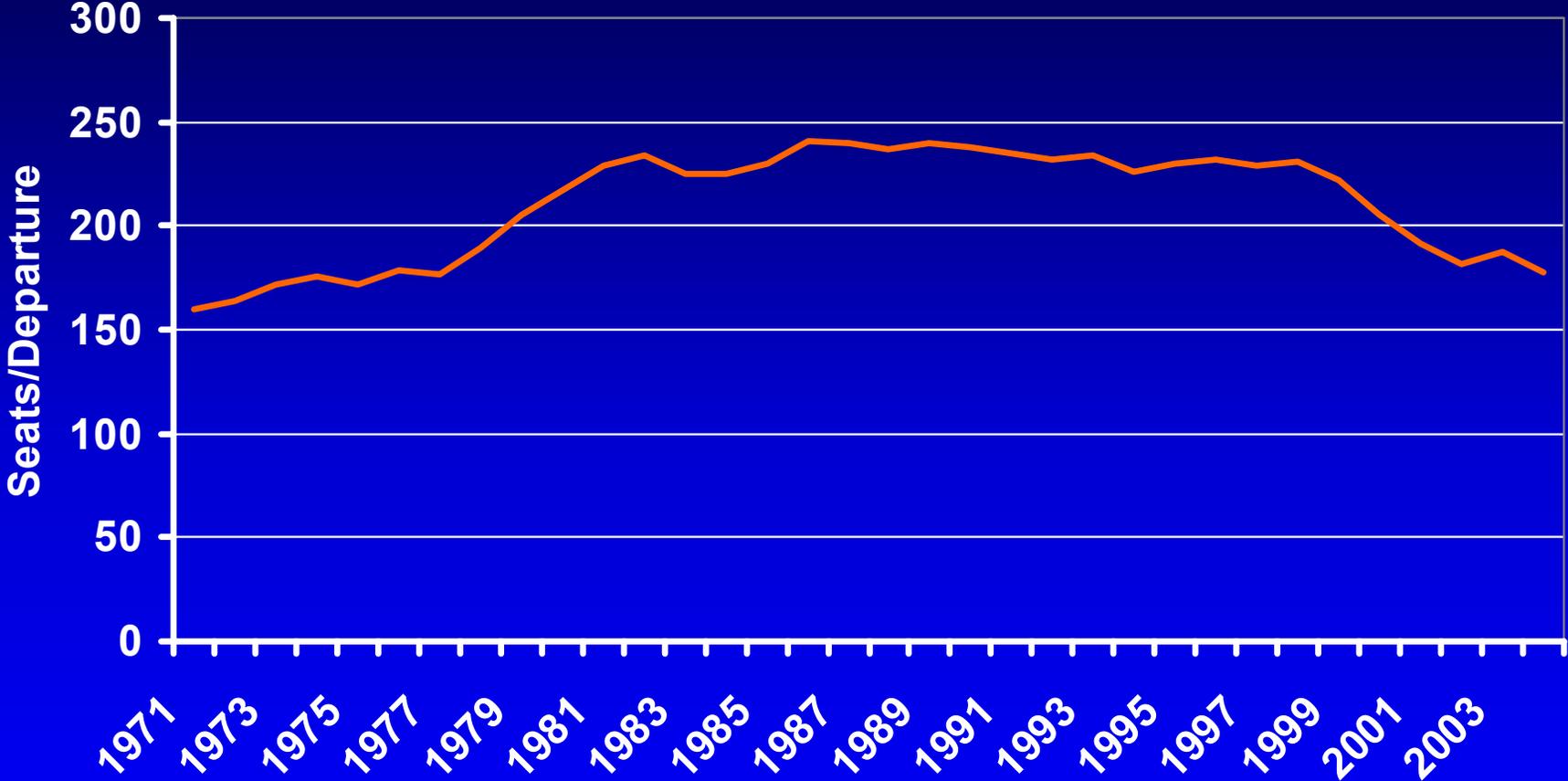
Figure 9: Change in Nonstop City Pairs and Average Aircraft Capacity across the North Atlantic



Source: The Boeing Company.

Note: Data were drawn for the month of August in each year.

JFK Airplane Size Is Declining: August – Jet Schedule



Effects of NLA on Competition and Traffic Flow Patterns



- ◆ **NLA introduction will increase competition in Hub-Hub market;** increase competition in all other markets indirectly.
- ◆ **NLAs will be introduced in Hub-Hub markets** where competition is intense;
 - Will intensify the need for cooperation with **alliance partners** since no carrier has strong presence at both end of intercontinental routes;
 - Will increase value of anti-Trust immunity
 - Alliance carriers will need to make **trade-offs between NLA and frequency of service;**





- ◆ Since the Top routes not growing, NLA must rely more on connecting passengers;
- ◆ To fill NLAs, airlines will need to increase deep discount fare offering very significantly; increases fare competition;
 - Competition on transfer markets will also increase as a result;
 - More feeder carriers need to be scheduled, and feeder aircraft size should increase at the congested airports; may not reduce slot demands at congested airports





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Alliance and NLA Economics - Summary

- ◆ **NLA and Strategic Alliances complement each other**
- ◆ **Value of time and disutility of making connections vs. direct flying;** Increase in income favors NLA, but preference for direct flights also rising
- ◆ **Unit cost savings by using larger aircraft** (economies of aircraft size) depends on market to market; how much unit cost advantage A380 has over B747 is also an issue
- ◆ The fact that average aircraft size did not increase even at highly congested airports is troublesome for NLA

NLA Economics is not straight forward; it depends on each market situation.



- ◆ **NLAs will not relieve shortage of landing slots at congested airports** since there is a need to schedule more feeder service aircraft
- ◆ **Terminal congestion is a major problem** as connecting passengers also increase for NLA
- ◆ **Consumers will benefit** because of the increased competition resulting in lower fares and increased itinerary options
- ◆ **Not clear if it will help airline's bottom lines;** depends a lot on consumer preference on direct flights
- ◆ **Impose substantial costs to airports** in order to accommodate the physical and operational needs in airside and terminal side activities for NLAs.



Concluding Remark



In the long run, Presence of NLAs

- ◆ will change the ways airlines plan their route network and flight scheduling
- ◆ will change competitive landscape in airline industry
- ◆ May change consumer preference on flying
- ◆ May change airline industry structure as closer collaboration between alliance partners are needed





Thank you

For Listening

