



The Economics of Travel Distribution in an Internet Driven Environment

TRAVEL DISTRIBUTION
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I. BACKGROUND

In February 2001, Global Aviation Associates, Ltd., published a study entitled, *The History and Outlook for Travel Distribution in the PC-Based Internet Environment*. The specific findings of the study can be divided into three somewhat inter-related categories. First, due to the manner in which the systems developed, the Global Distribution Systems (GDSs) and their predecessors, the Computer Reservation Systems (CRSs), as middlemen in the distribution chain were able to exert upstream market power over the airlines. As a result, the companies have been able to charge fees to the airlines that have steadily risen in both absolute and relative terms despite advances in computer processing power and reductions in data transmittal costs. Second, the Internet and related technology is enabling the previously insurmountable barriers to entry in the GDS market to be circumvented, allowing greater competition and forcing existing intermediary companies to re-evaluate their business models. Third, airlines are and will continue to be a driving force behind the introduction of new technology as they attempt to lower product distribution expenses and become more efficient.

In the 1960s and 1970s, airlines developed CRSs to add efficiency to an immensely labor-intensive and error-prone function, recording reservations and tracking inventory. In the following years, these systems were marketed to travel agents to expand the efficiency of the reservation process and as a marketing tool. Only a few carriers were successful in marketing their systems, as the cost of purchasing the necessary hardware alone ran into the tens of millions of dollars and purchasing travel agent market share was even more prohibitively expensive. Consequently, for much of this time, the slow pace of technological advancement served to protect the incumbent GDSs from new competition. By 2000, there were four GDS companies: Sabre, Galileo, Amadeus, and Worldspan.

GDSs have consistently maintained profit levels that far exceed the airlines they serve. In 1999, from a revenue perspective, Sabre was the largest GDS with revenues 85 percent greater than Amadeus and 60 percent greater than Galileo. Sabre's revenues equated to roughly that of America West, one of the smaller major U.S. carriers. However, Sabre's profits were more than three times those of America West. Sabre processed over 353 million flight segments in 1999.

Although Galileo ranks second in terms of revenue, it operated at the highest gross operating and net profit margins of 20.5 percent and 14.3 percent, respectively, for 1999. It was second in worldwide location share, with 40,192 travel agency locations as of December 31, 1999. The Galileo GDS processed over 325 million segments in 1999.

Amadeus was the largest GDS in terms of worldwide location share, with 48,126 travel agency locations as of December 31, 1999, yet they ranked third in revenue share, net earnings and profit margin. Amadeus processed approximately 269 million segments this same year.

As Worldspan is not a public company, comparative information was not obtained.

The four GDSs combined provide the computer search and flight booking capability for nearly every travel agent in America. This oligopolistic market structure permitted the four GDSs to raise the booking fees they charge airlines by nearly 7 percent per annum between 1990 and 2000, even though the marginal cost of transactions fell over the same time period. These booking fee increases resulted in robust net profit margins (an average of 13.6 percent) for the publicly traded GDS companies, which was more than twice the average margin of the U.S. major airlines.

With booking fees in the late 1990's approaching 3.4 percent of the round trip ticket price and distribution channel costs varying between 3 percent to 20 percent, the suppliers had the incentive to introduce new, more efficient technology and distribution vehicles. Orbitz, Hotwire, and the desire to create "direct-connect" capabilities are among the results of these efforts.

The dominance of the GDSs may be nearing an end. Technology has accelerated to the point where the creation of competitors that serve as GDS bypass vehicles is now technically and economically feasible. For example, airline websites, a very low-cost distribution channel, are attracting consumers in greater numbers and are, for some suppliers, the primary distribution channel. Additionally, technology has progressed to a point where these "dinosaurs of the mainframe" are in need of modernization in order to compete effectively in the "new economy." New Internet-technology based travel distributors are able to provide greater search capabilities at lower computing costs.

As the GDSs and travel agents have seen their roles challenged by the process, termed "Disintermediation," they are being forced to provide added value in order to survive.

II. OBJECTIVES OF THE STUDY

This study, commissioned by Orbitz, has been designed with the following objectives:

1. Identify the scope and nature of the continuing pressures on airline pricing and thus

the need for greater air carrier control over costs, focusing especially on recent trends to reduce distribution costs.

2. Update the booking fee per segment data developed in the February 2001 study and compare these costs to other developing distribution channels.
3. Examine the rapidly changing relationship between air carriers, travel agents, and other service providers within the product distribution chain and the resulting implications for "Disintermediation" and "Reintermediation."
4. Examine the benefits to the consumer driven by the changes in the channels and vehicles of distribution.

III. STUDY METHODOLOGY

This study is, in many respects, an update of the information contained in our February 2001 study. To identify the relationships between price pressures on the airline industry and carrier attempts to control costs, we accumulated significant industry financial and economic data from public sources including SEC filings and U.S. Department of Transportation Form 41 Financial and Traffic databases. Booking fee cost per segment information was provided by a range of airlines, both major network and low-fare carriers. This information was aggregated, weighted by the number of passenger segments each carrier processed through each GDS, in order to develop average per-segment fees. Due to the wider range of carriers that provided data and the availability of 2001 actual data versus estimates, some costs cited in this study vary in comparison to the February 2001 study.

In addition, we examined the structural changes taking place in channels of distribution and the relationships caused by the entry of new competitors. We have also examined the trends in travel distribution based on studies by organizations such as PhoCusWright, Forrester Research, and related research entities.

IV. STUDY FINDINGS

The U.S. travel industry, according to the Travel Industry Association of America, generated an economic impact of \$545.1 billion in 2001, a large portion of which is directly attributable to air travel. This same year, notwithstanding the events of September 11, U.S. air carriers generated \$80.3 billion in passenger revenue. With enplaned passengers growing at a rate of 2.6 percent

per annum from 1990 to 2001, numerous opportunities exist for those that can provide the most efficient links between the supplier and consumer of air travel.

In this study, we are focusing primarily on the channels that link the parties, and in particular the channels that are technology driven. Online travel is expected to grow rapidly over the next few years as suppliers and intermediaries attempt to move consumers from higher priced channels of distribution such as “brick & mortar” agencies to low cost supplier and third party websites. The online leisure travel segment alone is forecast by PhoCusWright to exhibit growth rates of nearly 30 per annum^{1/}. The airline industry, with severe financial pressures, is particularly focused on lowering the high distribution costs. As reported in Travel Weekly, May 20, 2002, “According to David Hilfman, Continental’s vice president of multinational sales and revenue programs, the high cost of processing tickets through the CRS is ‘the biggest issue for us right now.’” Hilfman went on to note that Continental was paying GDS booking fees of \$17 per passenger ticket. This is considerable when one recognizes that the average system round trip ticket price is only \$374.

Throughout our research into air travel distribution, we have found a number of common threads evolving relative to cost structures, pricing, and competition within and between distribution channels.

1. AIRLINE COSTS & PROFITABILITY

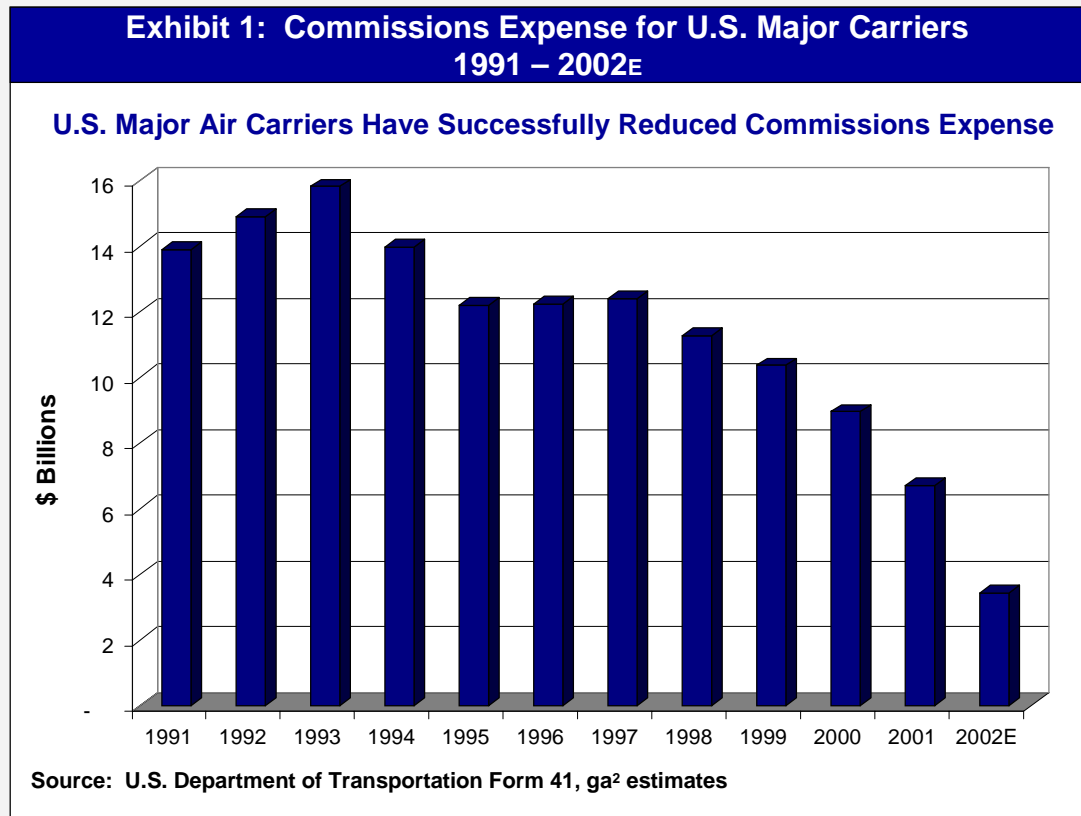
The airline industry has never been particularly profitable, in either absolute or relative terms. As we noted in our 2001 study, *The History and Outlook for Travel Distribution in the PC-Based Internet Environment*, operating margins for airlines have been substantially less than what is considered healthy in other industries.

Air carriers (both network and low fare point-to-point) face consumer pressure to lower fares while struggling to control costs. This situation is now even more critical following a year where airlines exhibited weak revenue growth due to an economic slowdown and suffered devastating financial effects caused by the September 11 terrorist attacks.

Product distribution is one area that airlines are focusing on in order to reduce operating expenses. At the beginning of the 1990s, reservations and sales expense comprised nearly 20 percent (approximately \$10.5 billion) of total operating expenses. In the following years, airlines reduced distribution costs in nearly all categories except for booking fees. Specifically, costs for

^{1/} PhoCusWright. “Online Corporate Travel 2001 – 2003: Market Share, Strategy, Forecasts, and Commentary.” January 2002: 33.

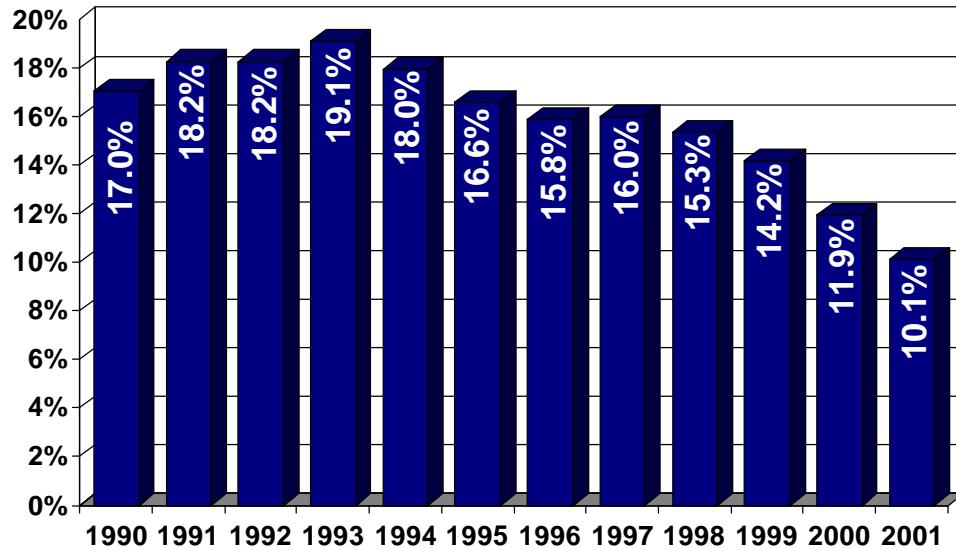
travel agent commissions, reservations, ticket issuance, and the very labor-intensive check-in process have been reduced substantially. For example, airlines have been reducing commission expense for years and no longer pay travel agent base commissions for travel sold in the United States. As a result, commissions expense, a major component of reservation and sales expense, has dropped dramatically (Exhibit 1). By 2001, these measures led to a reduction of reservation and sales expense to 10.1 percent of total operating expense (Exhibit 2).



In contrast, booking fees, which also fall into this broad reservation and sales expense category, have been immune to cost control due to the market power of GDSs. Exhibit 3 displays the relationship between reservation and sales expense per dollar of passenger revenue and the GDS booking fees per segment. While reservations and sales expenses, as a percent of revenue, have declined steadily, GDS booking fees have not. As a consequence, these fees constitute a significant and growing portion of total airline product distribution costs. We estimate that in 2002, these fees will constitute an estimated \$4.36 per booked segment, resulting in a total expense to the airlines of approximately \$2.2 billion. This cost is passed on to the consumer in the form of higher ticket prices. In 2002, for example, booking fees will be approximately 3.4 percent of the average system roundtrip fare.

Exhibit 2: Reservation and Sales Expense as a Percent of Total Operating Expense for U.S. Major Carriers 1990 - 2001

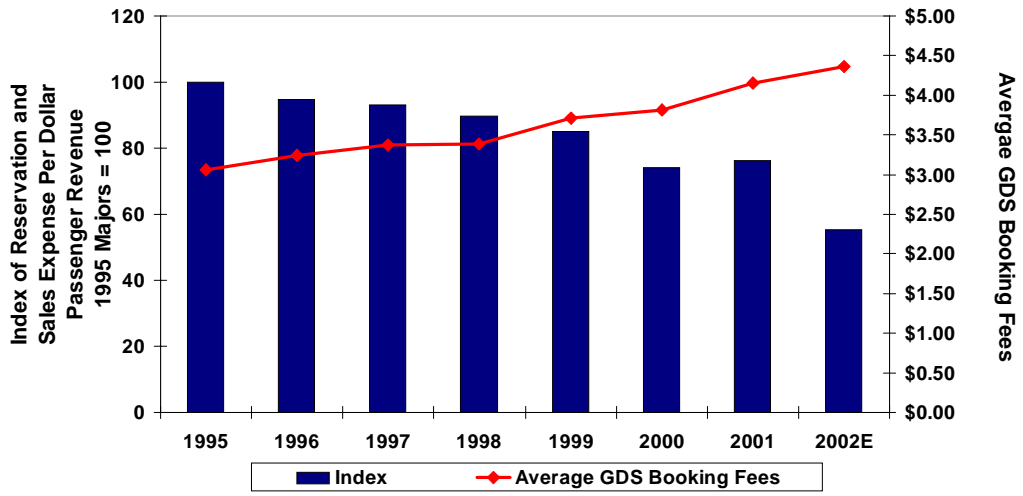
U.S. Major Air Carriers Have Successfully Reduced Product Distribution Costs



Source: U.S. Department of Transportation Form 41

Exhibit 3: Reservation and Sales Expense Per Dollar Passenger Revenue for U.S. Major Carriers and GDS Booking Fee Trend 1995 – 2002E

Reservation and Sales Expense Per Dollar Passenger Revenue is Falling Despite the Increase in GDS Booking Fees Per Segment



Source: U.S. Department of Transportation Form 41, Airline Proprietary Data

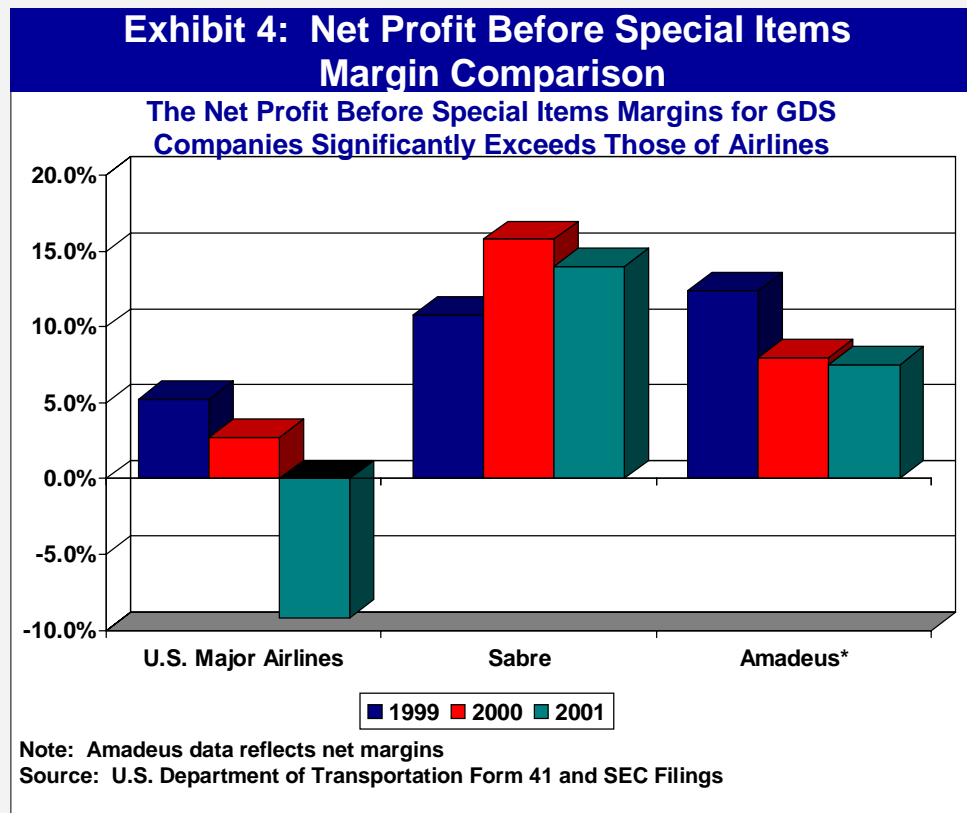
2. GLOBAL DISTRIBUTION SYSTEM FEES HAVE INCREASED OVER TIME

Having only four GDSs in the world market, combined with competitive pressure on airlines to participate in each GDS in order to reach all travel agents, has resulted in little if any GDS price

competition.

Essentially the GDS fees, which are approximately 3.4 percent of the average ticket sale for the network carrier, represent closer to 5 percent of the average ticket price of the low cost carrier. Moreover, branding and product recognition are such with jetBlue and Southwest that they are able to drive their customers to their respective websites. In fact, the GDS pricing model is sufficiently high cost that low cost carriers such as jetBlue and Southwest have opted to drive their customers to book directly through their website or reservations office. jetBlue, in a recent registration statement indicated that almost half of its sales were on its website and fully 92.6 percent were supplier direct.

Thus, they are able to largely eliminate the costly booking fees. However, major network carriers cannot so easily avoid the GDSs, in part because the complexity of the product offered often requires the expertise of the travel agent. As a result, GDS earnings have been robust. GDSs have been generating net profit margins in the range of 10 percent to 15 percent, while airlines have struggled to generate 5 percent margins in a good year (Exhibit 4).



GDS booking fees have risen steadily to support these profit margins. From 1995 through 2001, booking fees paid by air carriers increased at 4.5 percent per annum while over the same period airfares remained relatively constant and the consumer price index increased by only 2.2 percent

per annum. Only a market oligopoly could sustain such a trend.

Booking fees have continued to increase between 2001 and 2002 despite further reductions in telecommunications and data processing costs. We surveyed a number of U.S. large network carriers and smaller niche carriers to determine what they are being charged by the GDSs. On an aggregated basis, carriers representing 44.1 percent of U.S. passenger enplanements reported that booking fees per segment would reach \$4.36 in 2002, up 4.8 percent from \$4.16 in 2001.²⁷ The estimated 2002 per segment fees will result in U.S. air carriers paying \$2.2 billion in GDS fees, an amount in excess of the entire industry net earnings in the year 2000, the last full year prior to September 11, 2001.

The significance of these booking fee costs is that they drive up ticket prices, currently comprising roughly 3.4 percent of the average system roundtrip fare. It is obvious why air carriers and other suppliers are working to shift channel buying to the relatively lower cost Internet and to their own websites.

For example, were the average booking fee reduced from the current \$4.36 to the Orbitz net Charter Associate level of roughly \$2.07, there would be a saving to the industry of almost \$1.0 billion.

According to The Forrester Report, "Travel: Direct Connect Isn't Enough," published in October 2001, "Booking fees' days are numbered. In 2000, 82% of GDS revenues came from booking fees - 87% of which came from airline reservations, which average \$4 per segment. By 2006, the GDS firms expect that booking fees will fall to 56% of their revenues, a 32 %decline, and that there will be a revenue loss of \$1.5 billion just for the three publicly held GDSs..."

3. THE DISTRIBUTION MARKET IS BECOMING MORE COMPETITIVE

The level and nature of competition in travel distribution is increasing rapidly and dramatically. There are major airlines and corporate travel agencies that are expanding to the Internet with software that is designed to better serve the clients' needs for optimal service and price. In addition, there is enhanced third party competition with the introduction of companies such as Hotwire and Orbitz that can provide competitive impetus to the major incumbents Travelocity, Expedia, and Priceline. As mentioned previously, a major force behind the airlines' decision to create such alternate channels and channel distributors such as Hotwire and Orbitz is the fact that distribution

²⁷ In this study, we had access to a more complete airline GDS booking fee data set. As a result, the booking fees per segment quoted in this and the prior study published in early 2001 differ.

costs severely impact airline profitability and prices being paid by the consumer.

3.1: Disintermediation and Reintermediation

With the creation of alternate channels and channel distributors came the concern that the role of travel agents, GDSs, and other middlemen in transactions between airlines and consumers would be reduced or eliminated. This so-called "Disintermediation" that was much discussed in 2000 and 2001 has not happened, at least to the extent predicted by some. Rather, we see increasing reference to so-called "Reintermediation" where travel agents and GDSs have responded to the competitive environment by redefining and adapting their business models.

In a January 2001 Progressive Policy Institute article, "The Revenge of the Disintermediated: How the Middleman is Fighting E-Commerce and Hurting Consumers," Rob Atkinson said that "...e-commerce-especially so called 'clicks and mortar,' where producers sell directly to consumers-is expected to continue to grow as more and more Americans get online and show a greater propensity to conduct commerce online."

The PhoCusWright "Online Corporate Travel 2001-2003" study stated that "While these alternative channels have the potential to Disintermediate, that will only happen if the intermediaries provide redundant services and their role or value can be completely assumed by others in the channel." The study went on to say that "...the Internet has merely transformed, not eliminated, the intermediary in corporate travel." Presumably, the same can be said for leisure travel.

In a February 2002 Air Transport World article, "Net Gains, Net Losses?", J.A. Feldman says, "Online agents and aggregators initially focused on single airline seats, then added hotel and car segments. Now they and GDSs are installing software to sell online packages, tours and cruises, which produce decidedly higher margins." That is, the intermediaries are focusing on adding value for the consumer.

Given the elimination of airline sales commissions to travel agents, we now hear more of the "Reintermediation" discussion. That is, agencies and travel managers will have to charge the travel service consumer for its service since it can no longer charge the supplier. This creates an entirely new mind-set for those successfully navigating the new world between supplier and consumer. Travel services managers such as American Express and Navigant, among many others, are bringing significant value to the consumer and, consequently, reaping commensurate reward. For example, American Express Corporate Services reports a 500 percent increase in year over

year bookings on the corporate online channel^{3/}. The Navigant subsidiary AQUA will provide software and a link between travel agencies and the Orbitz website that will permit the travel agent access to web fares and direct booking capability. In effect, AQUA will be an intermediary that will facilitate and add value, thus "Reintermediating."

This "Reintermediation" trend is a clear function of the increasing level of competition in the marketplace, and in particular to the elimination of the commission payment by the airlines to the agent. The agent, or other intermediary, is now adding value and in most cases becoming the "agent" of the consumer in contrast to historically being the "agent" of the supplier.

As outlined by William Maloney, Executive Vice President, ASTA, in his testimony before **The National Commission to Ensure Consumer Information and Choice in the Airline Industry**, "Since the earliest days of commercial aviation, there has been an independent presence in the market, offering consumers an alternative to dealing directly with the airlines for information and transactions." Further, Maloney states, "Both the traditional agents who have embraced Internet technology and the new fully-online agencies provide an efficient means to deliver the one-stop, accurate, and unbiased comparative travel information and advice that the consumers value." We see no reason for this situation to change dramatically, particularly where the "added value" is evident to the traveling public.

3.2: Carrier Websites

As we noted in our 2001 study, an airline website is clearly the least costly distribution channel. Booking travel through a traditional travel agent before March 2002 could cost an airline 15 percent to 20 percent of the revenue generated while travel booked directly by the consumer on the air carrier's website can cost the carrier as little as three percent to five percent of the value of the ticket. Air carriers have been encouraging customers to purchase air travel via their websites by reducing ticket prices and offering bonus frequent flyer mileage. As a consequence, between 2000 and 2001, air carrier websites have seen a significant increase in market share (Exhibit 5).

3.3: Third Party Websites

A number of air carriers have banded together to invest in and create third party websites that would be materially less costly than GDSs although somewhat more expensive than their own websites. Two such creations are Orbitz and Hotwire.

^{3/} PhoCusWright. "Online Corporate Travel 2001 – 2003: Market Share, Strategy, Forecasts, and Commentary." January 2002: 36.

Exhibit 5: Distribution Channel Market Share

Distribution of Travel Products is Being Redistributed Towards Low-Cost Channels

<u>Distribution Channel</u>	<u>Business Travelers</u>		<u>Leisure Travelers</u>	
	<u>2001</u>	<u>2000</u>	<u>2001</u>	<u>2000</u>
Travel Agent	57%	59%	26%	33%
Book Directly	10%	15%	30%	39%
Travel Club	1%	1%	2%	2%
Corporate/Intranet	9%	9%	2%	1%
PDA	16%	13%	39%	23%
Internet Travel Site	6%	5%	18%	10%
Airline Website	9%	6%	20%	11%
Travel Agency Website	1%	1%	1%	2%
Other Method	6%	3%	1%	2%

Source: Travel Weekly's U.S. Consumer Travel Survey 2001

Orbitz, for example, is open to all travel suppliers and is able to provide Charter Associate Members with a booking fee cost that is roughly two-thirds that of the traditional GDS. Not surprisingly, Orbitz's success has been driven by two primary characteristics: (1) a search engine that is unbiased and technologically advanced, and (2) a technology that allows it to sell at a substantially reduced cost when compared to the traditional GDS that must rely on legacy architecture.

Despite claims to the contrary, Orbitz's entry into the market has enhanced rather than harmed competition. Since the announcement of Orbitz's start-up in 2000, travel agents, Travelocity, and Expedia, among others, have charged Orbitz with unfair competition on the basis that it had exclusivity agreements with associate members for web fares. In fact, air carriers, like other manufacturers and suppliers, have the right to distribute their products as they see fit, and in particular to not distribute very low priced web fares through high priced channels such as GDSs.

This basic principle was confirmed in the Disposition of Petition and Complaint issued by the U.S. Department of Transportation in Petition for Rulemaking and Third-Party Complaint of Donald L. Pevsner, Esq. (Order 2000-10-23, U.S. Department of Transportation Docket 97-2061). The Department dismissed Mr. Pevsner's Petition and noted, "Mr. Pevsner himself recognizes that airlines' commission expenses would rise if they were required to sell low Internet fares through travel agents and that fares would rise in turn. The same would hold true if airlines were required to provide information on Internet fares to travel agents."

As noted in the May 6, 2002, issue of Travel Weekly, United Airlines in a filing with the U.S. Department of Transportation stated that airlines are developing direct links to their jointly owned Orbitz

operation for the express purpose of bypassing the “very high-cost GDS networks.” Additionally, it would appear that web fares are available to Travelocity and Expedia if they are willing to distribute at costs to the carriers that make competitive and economic sense. In a May 14, 2002, New York Times article, “Choices for Cheap Tickets” by Joe Sharkey, Expedia Marketing Director Suzi LeVine, when referring to web fare deals done by Expedia with major carriers (Exhibit 6), noted that this would give Expedia “the full range of Web Fares” usually reserved for Orbitz or their own booking sites.

Exhibit 6: Expedia Webfare Promotion

Expedia.com® Welcome - Already a member? [Sign In](#)

home flights hotels cars vacation packages cruises deals guides maps business

Site Map | My Trips | My Profile | Customer Support

Internet Fares

NEW Web Fares!

Fly for less with Web Fares!

Great news—now Expedia.com has money-saving Web Fares from Alaska Airlines, America West Airlines, Delta Air Lines, US Airways, and other name-brand airlines! When you book a Web Fare, you'll get a great deal on your flight, even on last-minute travel.

When you search for flights, be sure to look for the gold "Web Fare" bar:

\$175.50 - Web Fare	<input type="button" value="Choose and continue"/>
1000 AM Depart Chicago (ORD) Arrive New York (LGA) 2:07 PM	Wed 10 Jun 2hr 10m American Airlines 120 Service flight
5:00 PM Depart New York (LGA) Arrive Chicago (ORD) 8:29 PM	Wed 26 Jun 2hr 20m American Airlines 120 Service flight

BOOK YOUR FLIGHT

To find Web Fares, simply search for flights using this Flight Wizard.

Source: www.Expedia.com

Travel agents also have access to web fares through Orbitz. Many travel agents use such Internet access on behalf of their clients. Further, in an agreement recently signed between Orbitz and AQUA, a subsidiary of Navigant, AQUA will provide software to enable travel agents to enter the Orbitz site directly from their own GDS workstations, and without having to access the Orbitz front end. Orbitz fares will appear in a window on the same screen as the GDS allowing fare comparisons, according to an article in the Travel Weekly issue of May 20, 2002, “Orbitz and AQUA Agree on Web Fare Access.”

3.4: GDSs

In a recent study by PhoCusWright, "Online Corporate Travel 2001-2003," the authors observe of GDSs:

"Several key market forces in the corporate online arena are pressing GDS margins. These include: increased airline costs and reduced revenue, the promotion of direct distribution, the influx of dot-coms in non-managed travel, the evolution of e-distribution for corporate managed travel, better market segmentation and shifting roles of the distribution players.

As a pre-emptive measure against direct connect revenue losses and in an attempt to load balance transactions between Web-based and mainframe systems, the GDSs have acquired online booking tools...^{4/}"

Clearly, the GDSs are under pressure, and also clearly, they are responding to market forces with innovation and market acquisitions. Sabre, for example, acquired the largest managed business travel site, GetThere.com, in October 2000.

There are signs now that GDS booking fee increases may be moderating in response to the shift in channel buying patterns to the Internet and in particular supplier sites and direct connect alternatives that bypass GDSs. Our analysis of GDS booking fees suggest that the 7 percent per annum increase during the 1990s and over 5 percent increase during the past five years to 2001 is moderating. For example, in early 2002, Al Lenza, Vice President, Distribution Planning for Northwest, commented on Sabre and Amadeus booking fee increases for 2002 of 2.9 percent and 2.0 percent, respectively, "Our view is that the fees are still too high." "It's a step in the right direction...only because the other direction is so wrong."^{5/} Subsequently, Worldspan announced an increase for Canada, Latin America, and the U.S. of approximately 2 percent.

4. INCREASED COMPETITION IS BENEFITTING CONSUMERS

Both business and leisure consumers are benefiting from the introduction of Internet-based travel distribution channels that have been fostered by technological advances. As competition for travel dollars has heightened between various channels, and players within each, there is increased downward pressure on fares. Henry Harteveltdt of Forrester Research says that "The Internet won't dictate fare structure but Internet channels will impact pricing as fares are overhauled."^{6/}

The trend toward increased competition has two primary results. First, Internet-based travel has

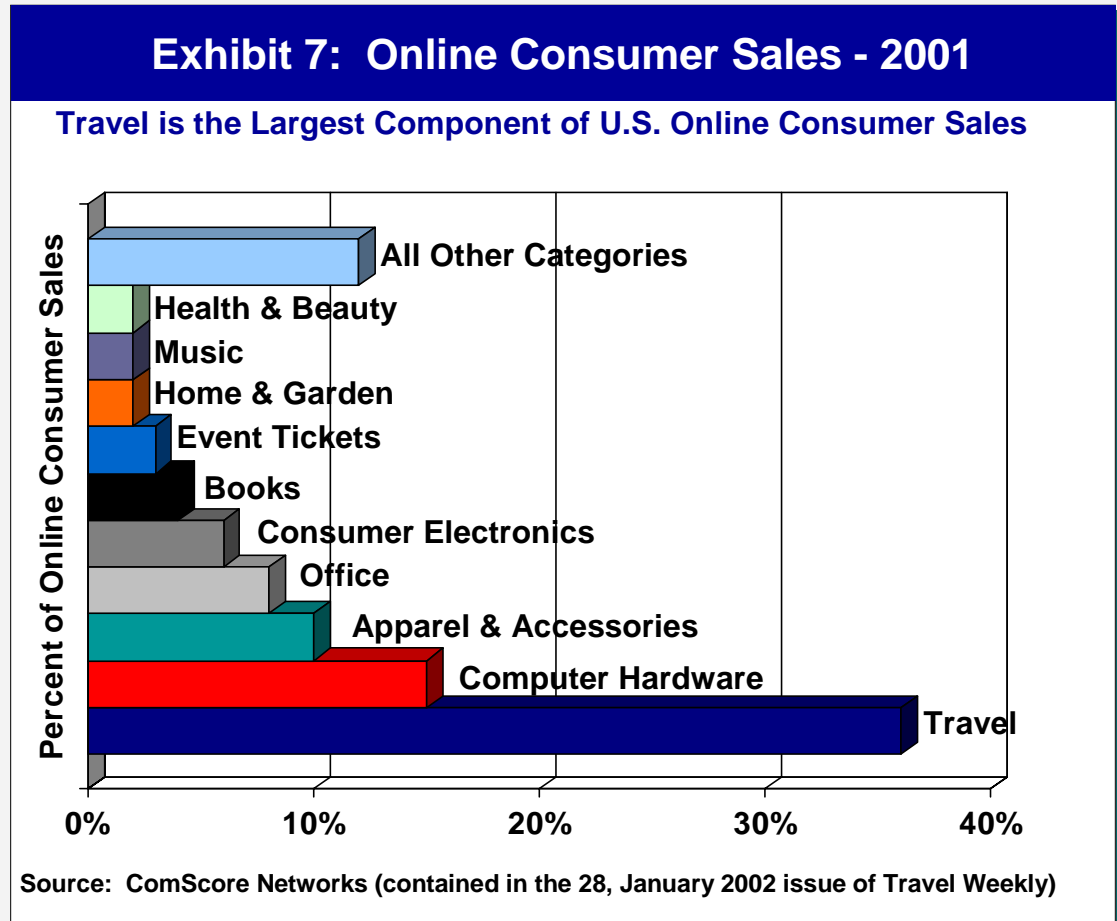
^{4/} PhoCusWright. "Online Corporate Travel 2001 – 2003: Market Share, Strategy, Forecasts, and Commentary." January 2002: 36.

^{5/} Jerry Limone. "More Firms Turn to Web Booking." *Travel Weekly* 18 February, 2002: 33.

^{6/} "Tech Bytes" *Travel Weekly* 28 January, 2002: 31.

and will continue to grow rapidly. In 2001, consumers spent \$19.4 billion on U.S. travel websites, making travel the largest segment of online consumer sales (Exhibit 7).^{7/}

Second, suppliers are continuing to develop innovative products. For example, firms such as American Express, Carlson WagonLit, Rosenbluth, GetThere (a Sabre subsidiary) and Navigant are introducing software and connectivity that will permit corporate clients to better manage their



travel budgets through innovative comparative price analysis mechanisms. According to J.A. Feldman in a February 2002 *Air Transport World* article, "American Express projects that corporate online self-booking tools such as MyTrip, which permit employees to shop within contract rules, may reach an estimated 44 percent penetration." The article continues, "Internet technology is altering the leisure fare structure too, through packaging and growing use of net fares and unbranded sales."

It must be noted, however, that while the competitive environment is improving, the high cost GDSs still dominate travel distribution. The "still-heavy reliance on CRSs and a traditional mindset are impeding faster change", according to *Air Transport World*^{8/}. And GDS booking fees are still

^{7/} Joan A. Feldman. "Net Gains, Net Losses?" *Air Transport World*, February, 2002: 37.

^{8/} Dennis Schaal. "Travel Sales Top Online Spending" *Travel Weekly* 28 January, 2002: 6.

high, totaling as much as \$17 per round trip ticket and continuing the historical upward trend.

V. CONCLUSIONS

The commercial airline industry is under severe financial pressure as a result of the slowing economy in 2001, the after effects of September 11, and the growing demand by passengers to reduce air fares caused in part by the evolution of the Internet as a vehicle for travel distribution.

In the mid- to late-1990s, air carriers began developing alternative travel distribution vehicles in order to bypass rising GDS fees and travel agent commissions. As profits have deteriorated in recent years, this challenge is being treated with increased urgency. That urgency is reflected in two industry responses: 1) technological innovation, and 2) airline management decisions to change the way they conduct business.

Our conclusions are:

1. Business and leisure consumers are continuing to maintain pressure on air fares through increased use of the Internet and reliance on travel management tools.
2. Air carriers are responding to the fare pressures by reducing costs. Distribution costs have been, and continue to be, a focus of this attention.
3. Growing competition within and between the channels of travel distribution is resulting in both "Disintermediation" and "Reintermediation."
4. GDSs continue to provide booking engine services, notwithstanding a definitive trend toward lower-cost direct consumer to supplier transactions.
5. GDSs continue to generate very significant profit margins, despite large losses by air carriers and increasing cost pressures on travel agencies whose sales commissions have been largely eliminated. The booking fees charged by the primary GDSs range between \$4.00 and \$4.73 per booked segment at the highest level of service, and can run as high as \$17 per round trip ticket.
6. Orbitz and similar websites have substantially reduced the cost of sales to airlines and therefore the consumer. Orbitz, for example, refunds roughly 30 percent of booking fees to its Charter Associate members. From June to December 2001, Orbitz rebated approximately \$4 million to its Charter Associates. Despite these inroads, the U.S. air carriers that participate in the four primary GDSs will pay roughly \$2.2 billion in booking fees in

2002, or approximately 3.0 percent of their system passenger revenue. Moreover, these booking fees reflect an increase in the average segment fee from 2001 to 2002 of 4.8 percent. If the GDSs charged rates to the airlines similar to those of Orbitz, a further \$970 million could be saved, much of which would be passed on to the consumer in the form of lower ticket prices.

7. Consumers are benefiting substantially from the technological innovation and cost reductions being affected by the air carriers. Consumers are also benefiting from the increased competition within and between channels of distribution, and could benefit further were it not for the level of booking fees being charged to the airlines, and thus to consumers, by the GDSs. The ability of GDSs to continue to extract annual increases in fees despite annual decreases in transaction processing costs is a testament to GDS oligopoly market power.

8. The shift in channel preference and the elimination of travel agency commissions by U.S. carriers has, in effect, shifted the role of travel agent from "agent" for the supplier to "agent" for the consumer.

Travel distribution technological innovation and competition between and within channels of distribution will continue to benefit the traveling public in the form of lower airfares. On the other hand, until the oligopolistic market power of the GDSs is diminished by further shifts in consumer demand to lower cost intermediaries, direct connect, and direct booking to the supplier, the consumer will continue to be saddled with excess costs.