Deregulation of the Airline Computer Reservation Systems (CRS) Industry

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DEREGULATION OF THE AIRLINE COMPUTER RESERVATION SYSTEMS (CRS) INDUSTRY

TIMOTHY M. RAVICH*

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I. INTRODUCTION

WITH THE ENACTMENT of the Airline Deregulation Act of 1978,1 Congress deregulated important business aspects of the U.S. commercial airline industry, including rates, routes, and services. Airline deregulation in turn stimulated the use of computer reservation systems ("CRS")2 as newly-deregulated air-

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2 The acronym "CRS" is synonymous with "GDS" or "global distribution systems," which are globalized CRSs. CRSs represent a network of "ARSs" or "airline reservation systems," which airlines made available to travel agents. Hereinafter, depending upon the context, "CRS" refers either generally to computer reservation hardware and software or specifically to reservation systems themselves, for example, Amadeus and/or Sabre.
lines found in CRSs a critical distribution channel through which to efficiently and effectively communicate fares and book passengers. The government did not also reform its regulation of CRSs, however, prompting deregulation proponents to make the dramatic characterization that:

"Just before the crypt of the Civil Aeronautics Board ["CAB"] finally slammed shut, a gnarled hand reached up and grabbed the airline reservations network. On November 14, [1984], only six weeks before its demise, the board put into effect its final regulations governing airline-owned computer reservations systems. And although the CAB gave up the ghost on regulating the airlines themselves, it has bequeathed to its institutional successor, the Department of Transportation ["DOT"], a tight grip on the airlines' main means of booking customers."

Market power and antitrust concerns prompted the DOT to interpose regulations between airlines and CRSs for the benefit of consumers in the first place. The DOT's CRS regulations continued for twenty years. As of July 31, 2004, however, the airline CRS industry, a "poster child of unintended consequences of government regulation," will be deregulated entirely. As detailed below, the practical as well as the theoretical policy underpinnings of CRS regulation became unsustainable, eroding principally because of consumer use of the Internet as a shopping tool and a concomitant divestment of airlines from CRS ownership. This article applauds CRS deregulation in the United States and records the free-market-based impulses motivating the DOT's policy shift.

Four circumstances prompted CRS deregulation and made clear that the "[t]ime has come to see what competition looks

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5 Telephone Interview with David A. Schwarte, Executive Vice-President and General Counsel, Sabre, Inc. (Feb. 16, 2004).

6 Cindy R. Alexander & Yoon-Ho Alex Lee, The Economics of Regulatory Reform: Termination of Airline Computer Reservation System Rules, 21 Yale J. on Reg. (forthcoming 2004) (clarifying that deregulation, conceptually and practically, does not necessarily end government intervention because "the relevant alternative to regulation appears not to be a state of laissez-faire but instead antitrust enforcement").
First, the competitive environment between airlines and CRSs is unprecedented, as no airline has a controlling stake in any CRS. Second, into the 1990s, travel agents booked almost all airline travel reservations, but modernly, alternative distribution channels, of which the Internet is the most impressive, have found commercial applications. Accordingly, consumers are empowered to affirmatively avoid intermediaries and transactional costs by accessing services and products directly from air carriers for free. Third, a fundamental predicate of CRS regulation has been turned inside-out. That is, in the early period of airline deregulation, government authorities, if not the airline industry players themselves, were concerned about muscular, dominant carriers using the very CRSs they owned and controlled as weapons against new entrants and/or existing carriers. In fact, today, so-called low fare point-to-point carriers such as Southwest Airlines and JetBlue Airways, whose business models stimulate direct on-line bookings, are the muscular, profitable airlines, not the so-called hub-and-spoke-based legacy carriers. Finally, arguably, the CRS rules themselves have played no role in stimulating or sustaining low-cost carriers or competition within the deregulated commercial airline marketplace, achieving instead the undesired and pernicious purpose of insulating CRSs from competition even among themselves.

Consequently, the DOT has reassessed the need for regulation and opted, after a lengthy seven-year comment period, to deregulate the CRS industry.

This article presents salient features of the DOT's decision to deregulate the CRS industry and is based upon examination of the entire DOT CRS rulemaking docket and related scholarship. Part II provides a review of CRS regulations and related rationales for deregulation. Part III explores what the DOT re-

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8 See id.
9 See id.
10 See id.
11 See id.
12 See id.
13 See Robert Bruce Wark, Observations on the End to CRS Regulation: Two Points of View, 18 AIR & SPACE LAW. 12, 14 (2004) ("By the time the DOT called for comments on its proposed rules in 2002, the debate was not whether deregulation was the right goal but rather what might be the best method to accomplish that goal.")
gards as the catalysts of CRS deregulation, namely airline divestiture of CRS ownership and the application of e-commerce to the airline industry. Part V offers an international perspective by reviewing deregulation impulses in the European Union and Canada. Finally, Part VI reiterates support of the long-anticipated CRS deregulation, but cautions that still-existent countervailing arguments to CRS deregulation may be revisited if market forces and/or antitrust enforcement are unable to effect competitive discipline and ensure industry and consumer welfare.

II. HISTORICAL OVERVIEW

In the infancy of commercial air travel, the manner in which airlines made and tracked reservations was simple, reflecting supply and demand of a not-yet-penetrated, unsaturated market. Airline management relied on rudimentary and manual document-retention and retrieval systems to orchestrate flight times, seat assignment, and the like. Airline travel agents mechanically created and/or maintained records by, for example, retrieving records around a "Lazy Susan" or using binoculars to read flight availability. The acute need for quicker, electronic technology presented itself, however, as the number of consumers using airline travel increased exponentially, outpacing infrastructure. Practical needs and chance motivated airline research and development of modern CRSs. As one narrator tells:

One day in 1953 an IBM sales representative named Blair Smith, finding himself on an American [Airlines] flight sitting next to [American Airlines founder] C.R. Smith, discovered that their surnames were only the first coincidence. Smith of American explained his frustration in managing reservations while Smith of IBM betrayed his eagerness to make a sale. Before long IBM had a contract to apply the war-making technology [of a Cold War computer system] to American's computer reservations problems. IBM called the project SABER, for Semi-Automatic Business Environment Research. For nearly a decade the project engineers toiled. Along the way, in 1959, an American executive flipping through a magazine stopped at an ad for the 1960 Buick LeSabre; he transposed the last two letters of the acronym and

called the system Sabre. It would become, in every respect, the
tool that its name implied.16

And so, American Airlines had its Sabre. United Airlines
countered with Apollo. Worldspan developed as a merger be-
tween Northwest Airlines’s PARS system and TWA’s and Delta’s
DATAS. Eventually, European interests entered the CRS market
(vis-à-vis Amadeus) by purchasing Continental Airlines’s “System
One” or “SODA,” which itself was a critical asset and product of
Eastern Airlines. There were others systems, too. Each such sys-
tem originally was developed, owned, and marketed by an air-
line for use by travel agents and travel agencies.17 In an early
period of CRS development, CRSs were for internal airline use
and, therefore “were production tools, rather than systems of
demand enhancement; they presented few opportunities for ex-
ploration of principal-agent relationships because employees of
the customer airline generally did their own booking and inven-
tory management using the system hardware and software pro-
vided by the vendor.”18 Once developed, CRS technology
helped airlines to maximize their revenue and capture impor-
tant marginal dollars by automating an airline’s manipulation of
flight inventories, rates, routes, services, restrictions, and the
like. Moreover, CRS technology incentivized airlines to provide
their CRSs to travel intermediaries (i.e., travel agents and travel
agencies). The business advantages of CRS technology for a
CRS-owning airline against competitors airlines without CRS
ownership were obvious.19 After all, inasmuch as they were orig-

16 Thomas Petzinger Jr., Hard Landing 60 (1995); see also Larry G. Locke,
Flying the Unfriendly Skies: The Legal Fallout Over the Use of Computerized Reservation
Systems as a Competitive Weapon in the Airline Industry, 2 Harv. J.L. & Tech. 219, 221
(1989) (“CRS technology created more than just enhanced technical efficiency
for travel agents and airlines. It also created opportunities for proprietary air-
lines to exploit the system as a competitive weapon.”).

17 By regulation, a travel agent or travel agency using a CRS is referred to as a
“subscriber.” In 2002, the generally-regarded major airlines ceased paying base
commissions to travel agencies in the United States, deciding instead to use in-
centive commissions. See Dep’t of Transp., Notice of Proposed Rulemaking,
(November 15, 2002) [hereinafter NPRM]. See generally Ian E. Pate, Comment, In
re Travel Agency Commission Antitrust Litigation: A Case of Nonprice Predation within
the Travel Industry, 64 J. Air L. & Com. 941 (1999) (concluding that “airlines were
engaging in collusion and conspiracy to eliminate travel agencies”).

18 Michael E. Levine, Airline Competition in Deregulated Markets: Theory, Firm Strat-
degy, and Public Policy, 4 Yale J. on Reg. 393, 459 (1987).

19 See generally Marj P. Learning, Note, Enlightened Regulation of Computerized Res-
ervations Systems Requires a Balance Between Consumer Protection and Profitable Airline
inally developed by airlines, CRSs were a proprietary interest and asset of individual airlines, not of the airline industry generally. Consequently, the DOT reasoned that airlines that developed and owned CRSs had an incentive to prejudice distribution channels in their favor.

Regulation of the CRS industry specifically arose out of concern that a deregulated CRS market would allow intolerable competitive tactics by and among airlines to the detriment of airline consumers. CRS regulation sought to prevent, among other things, airlines that owned CRSs from using their systems as a competitive weapon. Statistical and practical accounts of industry and consumer reliance on CRSs bolstered the policy underpinnings of CRS regulation. For example, by 1999, travel agents sold almost seventy-five percent of all airline tickets, ninety-three percent of which were made through an airline-provided CRS as to domestic flights. Potential passengers came to rely on travel agents and travel agencies in making air travel plans. CRSs, after all, offered travel agents and travel agencies a constant and up-to-date inventory of ever-changing fares, schedules, conditions, and restrictions. Dynamically, CRSs showed travel agents schedules, fares, and seat availability for flights across markets. CRSs encouraged sales by providing intermediaries with the convenience and capability of corresponding a depth of airline offerings to any given customer’s needs. Arguably then, CRSs were the virtual bloodstream of an airline, representing prime access to and a preferred source of revenue and passengers.


Curse of the Mommy Tomb, supra note 4, at 8 (“There were a number of cooperative efforts to set up a common industry system, but all failed, in part because the government hinted that they might violate antitrust laws.”).

Airlines have been accused of using data on other airlines’ fares to reduce competition. See United States v. Airline Tariff Publ’g Co., 836 F. Supp. 9 (D.C.D.C. 1993); 59 Fed. Reg. 15,225 (Mar. 31, 1994).


Id. at 69,372.

Learning, supra note 19, at 477 (“As the CRS became the cornerstone of a blossoming automated industry, profitability became even more dependent on producing, distributing, and retrieving timely and accurate information.”); see also Kevin J. Johnson, Computer Reservations System Participation: Is It Still Necessary for Smaller Carriers?, 11 Air & Space Law. 9, 12 (1997) (“Even with all of the distribution alternatives that are springing up today, CRS participation is still the most efficient means of reaching the widest audience for a carrier’s services.”).
CRS had become a "survival characteristic" of any viable deregulated airline, such that the demise of some airlines during the deregulated period (for example, People Express) occurred in part because of the lack of a competitive CRS. In all, CRSs clearly had important leverage in the airline business and the degree to which the CRSs exercised or could exercise that power concerned regulators.

The suspicion that airline-owned CRSs could be and were being used to negate the competitiveness of the airline industry and prejudice the consumer welfare generated CRS regulation. United States Supreme Court Justice Stephen Breyer, while a judge of the United States Court of Appeals for the First Circuit, distilled the critique of CRSs as follows:

First, [critics] argue that the CRS-owning airlines bias the programs and displays in their own favor. Carrier A, for example, may use a computer algorithm that lists all of its own connections before it lists any connection with other airlines. . . . Second, a synergy between airline ownership and ownership of a CRS permits the CRS-owning carrier to protect its market position in both the CRS and airline industries. An airline dominant in a particular region can offer powerful inducements to travel agents in that area to use its CRS system . . . . Third, the critics argue that an owner may use information stored in the CRS about each passengers' itinerary, class of service, fare code, and so forth, for anticompetitive purposes . . . [as] [t]his information offers valuable insights into market responses to new fares, routes, or services.

The first set of CRS regulations, arising in 1984, purportedly addressed these concerns. "[T]he CRS rules were meant to ame-

25 See, e.g., Paul Stephen Dempsey, The Disintegration of the U.S. Airline Industry, 20 Transp. L.J. 9, 14 (1991) (identifying other characteristics of successful deregulated air carriers, including: multiple hubs, frequent flier programs, sophisticated yield management, fuel efficient fleet of standardized aircraft, low debt, low wages and flexible work rules, superior service, and international routes); see also Paul Stephen Dempsey, Antitrust Law and Policy in Transportation: Monopoly $ the Name of the Game, 21 Ga. L. Rev. 505, 596 (1987); RIGAS DOGANIS, FLYING OFF COURSE: THE ECONOMICS OF INTERNATIONAL AIRLINES 278 (Routledge 1991) ("It is going to be critical for airlines not only to join global or regional computer reservation systems but also to make optimum use of the database CRS can provide in order to maximize their revenues and improve their marketing. Airlines that fail to do this in the years ahead will find themselves losing the competitive battle.").

26 See, e.g., Locke, supra note 16, at 219.


28 49 Fed. Reg. 32,540 (Aug. 15, 1984); see also United Airlines v. CAB, 766 F.2d 1107 (7th Cir. 1985). The 1992 CRS regulations were set to expire (or sunset) on
lorate potential abuses that could be directly attributed to vertically integrated airlines and systems." In particular, the DOT's CRS regulations were predicated on an antitrust principle holding that each CRS was a monopolist whose "essential facilities" must be made available to all airlines and travel agents. Over time however, the rationale underlying CRS regulation changed radically because the structure of CRS ownership and the technologies facilitating distribution of airline offerings changed in revolutionary ways.

CRS deregulation is the product of many years of DOT consideration and review of the regulatory environment. In 1994, the DOT set out to revisit its original 1984 CRS regulations, which were amended in 1992 and scheduled to sunset on December 31, 1997. In 1992, the DOT began, but never finished, a comprehensive study of CRSs. In 1997, the DOT formalized December 31, 1997. In 1994, therefore, the DOT announced that it was reviewing the CRS regulations. See Donald J. Boudreaux & Jerome Ellig, Beneficent Bias: The Case Against Regulating Airline Computerized Reservation Systems, 57 J. AIR L. & COM. 567 (1992).


Gelhorn & Liebeskind, supra note 30, at 18. In 1993, the National Commission to Ensure a Strong Competitive Airline Industry (the "National Airline Commission"), which was chaired by Virginia Governor Gerald L. Baliles, was asked in its enabling legislation to review a wide variety of issues including airline computer reservation systems. See Airport and Airway Safety, Capacity, Noise Improvement and Intermodal Transportation Act of 1992, 49 U.S.C. App. 1371, § 204(d)(3)(E) (as amended by Pub. L. No. 103-13 (April 7, 1993)). Many in Congress pressured the National Airline Commission to propose strict regulations on CRSs, as well as on frequent flyer programs. Some believed that CRSs were unfairly used by some carriers to re-direct traffic to their own airlines at the expense of others. Such suggestions, however, did not play out given that the 1984 CRS regulations were amended in 1992, the year prior to the National Airline Commission's meetings. For that matter, the National Airline Commission did not see any convincing evidence that these kinds of things were causing, in any way, the industry's problems. So, the National Airline Commission stated in its "Chairman's Summary": "Some of the issues we were asked to study, such as computer reservations systems and frequent flyer programs, after careful examination required no action by this Commission." National Commission to Ensure a Strong Competitive Airline Industry, Change, Challenge and
its review of the CRS regulations, culminating in a November 15, 2002 "Notice of Proposed Rulemaking" (the "NPRM"). The 2002 NPRM welcomed comments about the state of existing CRS rules and noted: "two developments that may enable us to reduce our regulation of the CRS business. Those developments are the growing role of the Internet in airline distribution and the diminishing airline ownership of the systems." Finally, on New Year's Eve Day 2003, the DOT deregulated the entire CRS industry. The DOT recognized that, "[d]ue to the ownership changes and technological changes in the CRS business, competition between the systems is no longer a direct form of airline competition." On January 7, 2004, the DOT issued its formal Final Rule respecting its CRS oversight, deciding that after twenty years of government supervision that "virtually all CRS regulation should be ended," with the caveat that the DOT was willing to adopt rules regulating CRSs only if reasonably necessary to prevent anti-competitive or deceptive practices that are likely to occur without the benefit of market discipline. The DOT allowed its CRS regulations to sunset on January 31, 2004, but provided for a transition period up until July 31, 2004, to sunset its rules respecting display bias and so-called parity-clauses.

III. CRS AIRLINE DIVESTMENT AND THE INTERNET

Changes in CRS ownership coupled with the commercialization of the Internet sustained CRS deregulation impulses. In the course of making its recommendations to the DOT regarding CRS regulation, the Department of Justice (the "DOJ") isolated two features that weakened the rationale supporting CRS regulation. Specifically, the DOJ recognized that "divestiture of CRSs from their airline owners, which affects the CRSs' incentives to diminish airline competition, and increased airline use of the Internet to bypass CRSs, which creates some distribution competition, have lessened the need for industry-wide regula-
tion." These two developments revolutionized the CRS regulatory environment.

When making travel plans, consumers traditionally relied upon the expertise and efforts of travel agents and travel agencies to locate appropriate airline booking information. Overwhelmingly, travel agents and travel agencies used airline-provided and/or airline-owned CRSs for this purpose. In turn, CRSs collected subscriber fees from travel agents (subject to other contractual arrangements) and the airlines paid CRS booking fees for the value of securing fares. In a traditional distribution scheme, then, CRSs virtually were alone as a distribution channel of airline offerings. While the reciprocal flow of fares for transportation was direct between passenger and airline, access to flight-related information necessarily passed through intermediaries, namely the CRSs upon which travel agents and travel agencies depended. Therefore, airline control of CRSs was critical, translating into revenue and market share. Stated another way, an airline’s control of a CRS theoretically served to limit, if not exclude, that airline’s competitors from booking passengers. The traditional path of distribution of airline services has been illustrated as follows:\(^\text{37}\)

\[
\text{Traditional Travel Agency Distribution}
\]

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37 Chart reprinted from Greg A. Sivinski, DOT Computer Reservations System Rules Protect CRS Market Power and Insulate High-Cost Channels of Travel Distribution 4, an article presented at the American Bar Association Air & Space Law 2002 Annual Meeting and Conference (Hollywood, Fla.) (Nov. 8, 2002).
In this traditional distribution scheme, airline ownership of CRSs fueled antitrust and consumer protection concerns and may have been the most significant obstacle to CRS deregulation. The DOT reasoned that CRSs did not need to compete for airline participation and that because

[T]he airlines that controlled the systems had the incentive and the ability to use them to prejudice the competitive position of non-owner airlines and to provide information on airline services through the systems to travel agents that gave an undue preference to the services operated by the owner airlines.[and,] [c]ompetitive market forces did not discipline the prices and terms for services offered by systems to participating airlines.\(^{38}\)

In other words, the traditional distribution scheme skewed power in the air travel reservation market in favor of CRS-owning airlines. Accordingly, CRS regulations theoretically served to protect the consumer welfare by blunting the use of CRSs as a competitive tool. The DOT specifically believed that the CRSs, at the center of a traditional distribution scheme, maintained market power over most airlines.\(^{39}\)

Others, however disagreed. For example, The Regulatory Studies Program at George Mason University’s Mercatus Center noted:

Both the existing rules and the current DOT proposals presume that the systems have market power over the airlines and travel agencies. Our analysis, on the other hand, suggests that the intense competition in the travel agency business coupled with the emergence of system alternatives is likely to have a counter-balancing effect on any alleged market power. Given thin profit margins, large numbers of incumbents, and low barriers to entry, travel agencies remain extremely alert to any innovation that would benefit their consumers. This alertness gives the agencies

\(^{38}\) Final Rule, supra note 34, at 1001.

\(^{39}\) Alfred Kahn, Deregulatory Schizophrenia, 75 CAL. L. REV. 1059, 1060 (1986) (explaining that deregulation policy is not inconsistent with antitrust enforcement: “Preserving equality of competitive opportunity is not, in principle, the same thing as suppressing or supplanting competition”). See also STEVEN A. MORRISON & CLIFFORD WINSTON, THE EVOLUTION OF THE AIRLINE INDUSTRY 38 (The Brookings Institute 1995) (“A final possible barrier to competition is computer reservation systems. The carrier that owns a system has a potential competitive edge because it is easier for travel agents who use the system to obtain information about that carrier’s flights.”).
a degree of bargaining power against the systems and airlines
since both need travel agencies for bookings.\footnote{Anil Caliskan and Jay Cohran, III, \textit{Public Interest Comment on Computer Reservations Systems}, published by the Mercatus Center, George Mason University, at 6 (Mar. 15, 2003).}

The DOT's characterization of each CRS as an independent
market unto itself for antitrust purposes also drew ridicule. Two
critics argued that:

[M]odern antitrust analysis focuses on the welfare of consumers, not competitors. The goal of antitrust is to promote competition because it benefits consumers. The usual starting point, therefore, is to analyze an industry from the perspective of the consumer—here, the airline passenger—and ask whether individual CRSs have the power to reduce competition to the passengers' detriment. Instead DOT starts from the high-cost airlines' perspective. It is undeterred by the experience of profitable low-cost/low-fare airlines, such as Southwest and JetBlue, that have developed distribution systems that do not rely heavily on CRSs and make CRSs compete for their business. DOT asserts instead that high-cost airlines must have access to every travel agent, the specific CRSs provide the only access to some travel agents, and that each CRSs service is invaluable and essential. Therefore, DOT concludes, each CRS is a separate and distinct market and CRS has market power.\footnote{Gellhorn & Liebeskind, \textit{Computer Reservations Systems: To Regulate or Not? – Flawed DOT Jurisdiction and Antitrust Rationale}, supra note 30, at 21.}

Another commentator noted that "the two most important antitrust charges [against CRS vendors], that of market power and display preference, appear theoretically incorrect and derived from important misunderstandings about how competition works in the CRS industry. These misunderstandings have led to unwarranted policy actions in this area."\footnote{Andrew N. Kleit, \textit{Computer Reservations Systems: Competition Misunderstood}, 37 \textit{Antitrust Bull.} 833 (1992).}

CRS regulation appeared inescapable, however, so long as airlines maintained ownership interests in any CRS. Momentum for CRS deregulation accelerated as CRSs became independent from the airlines and shed any incentive, theoretical or actual, to favor one carrier over another.\footnote{See David A. Schwarte, Address at the ABA Forum on Air & Space Law, Spring Update Conference: Aviation: The Second Century (Washington, D.C.) (Mar. 18, 2004).} Indeed, in the 1980s, one commentator forecast the likelihood of CRS deregulation if airlines divested ownership and control of CRSs, arguing that:
[A] simpler and more effective solution would be to terminate ownership relations between the reservation service and the airlines. The services could be independent businesses that would provide the service to airlines and travel agents. An independent operator would have strong incentives to provide equal, non-manipulative treatment of users. By changing structural relationships, regulatory controls over conduct could be minimized.\footnote{44}

Ultimately, the DOT was persuaded that "[t]he major predicate for the rules has always been the systems' control by airlines. The U.S. airlines' divestiture of their ownership interests has eliminated that basis for the rules."\footnote{45}

The second great development facilitating CRS deregulation was the growth of the Internet as a shopping tool for airline passengers. The Internet is essentially a second-generation CRS, as the CRS pioneered the first business-to-business electronic exchange of information, and provided "a new interface for one of the largest, most complex, and most successful electronic commerce systems developed before Internet commerce was possible."\footnote{46} The Internet provided consumers with two alternatives.


\footnote{45} Final Rule, supra note 34, at 977. Under 49 U.S.C. § 41712, the DOT is authorized to prohibit airlines and "ticket agents" from engaging in unfair competition and deceptive practices in the sale or provision of air transportation. Inasmuch as airlines have divested from CRS ownership, the DOT's jurisdictional grounds to enforce such prohibition against non-airline owned CRSs is uncertain.

First, in comparison to the traditional distribution path illustrated above, the Internet streamlined traditional travel agency distribution by offering a direct channel between the service provider and the end-user.\textsuperscript{47} In this scheme, the Internet reformulated the airline industry's cost structure, reducing the costs of ticket distribution by approximately half, "often eliminating traditional travel agent services, lowering transaction costs, and allowing airlines to fill otherwise empty seats through low-price Internet deals."\textsuperscript{48} The Internet encouraged airlines to communicate directly with their target market with minimal transactional expenses. For example, in the United States and Europe, alike, the Internet has stimulated some commercial airlines, particularly low-cost carriers, to apply a fresh approach to using airline livery as a marketing tool, painting airplane fuselages and/or engines nacelles with "dot com" addresses (e.g., JetBlue.com and easyJet.com, 

\textsuperscript{47} Chart reprinted from Sivinski, supra note 37, at 5.

\textsuperscript{48} John R. Mietus, Jr., Recent Developments in Aviation, 28 Transp. L.J. 229, 237 (2001) (discussing impulses to regulate airline distribution practices involving the Internet); see also Reply Comments of Orbitz, LLC at 4, In the Matter of Computer Reservations System (CRS) Regulations, OST-99-5888 (October 23, 2000) ("Entrenched incumbents such as Sabre/Travelocity and Microsoft/Expedia have recommended that the Department extend the full range of CRS Rules to some Internet travel websites and not to others, attempting to either exempt their own sites from any regulation or to disadvantage online competitors for whom there is no empirical justification for regulation."); see also Harrell Associates, The Internet Travel Industry: What Consumers Should Expect and Need to Know, and Options for a Better Marketplace, June 6, 2002, at 9.
etc.). Second, the Internet avoided the role of travel agencies, offering a more direct channel for consumers. That is, websites such as Expedia.com, Orbitz.com, and Travelocity.com arose to put consumers themselves in the shoes of CRS-using travel agents and travel agencies:

The Internet as a shopping tool motivated the DOT to consider that perceived or actual CRS market power was eroding because of the evolution of alternative airline ticket distribution vehicles. Thus, the fundamental premises of CRS regulation had disappeared. In the end and in the DOT's own words:

Airlines are selling an increasingly large share of their tickets through their Internet websites and a diminishing share through

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49 Note, The Legal and Regulatory Implications of Airline Computer Reservation Systems, 103 Harv. L. Rev. 1930, 1947 (1990) ("Technological change may overrun any potential 'bottleneck' of travel agents as the sole distribution source and obviate the need for regulatory interference.").


51 Chart reprinted from Sivinski, supra note 37, at 6.

52 RIGAS DOGANIS, THE AIRLINE BUSINESS IN THE 21ST CENTURY 169 (Routledge 2001) (identifying the Internet as a driver pushing airlines into e-commerce and suggesting that "the ability of travel agents to influence customers' choice of airline is declining [and that] effective use of the Internet provides airlines with increased marketing power").

53 See, e.g., Reply Comments of Northwest Airlines, Inc. at 5, In the Matter of Computer Reservations System (CRS) Regulations, OST-99-5888 (June 9, 2003) ("Today, [however,] that foundation, and the rules that it engendered are a relic of a bygone era.") (on file with the author).
travel agencies using a system. The airlines' control over access to their webfares, the discounted fares originally offered only through individual airline website, has enabled them to obtain lower fees from two of the systems. And travel agencies are increasingly demanding—and winning—contracts from the systems that give them more freedom to use alternative booking channels and to switch systems periodically.54

Consequently, “[t]his dramatic change in circumstances has eviscerated the original rationale for the rules as a shield against competitive harms stemming from the potential for airline owners to leverage the market power of CRSs.”55 Indeed, in the early stages of CRS deregulation, airlines likely will use the Internet itself as leverage against CRS vendors.56

IV. SURVEY OF DOT’S NEW RATIONALE

The DOT has cancelled all but two CRS regulations, namely those concerning display bias and so-called parity clauses in airline participating carrier agreements. Both such rules will expire on July 31, 2004.

A. DISPLAY BIAS

A distinguishing feature of CRS regulation was the DOT’s prohibition against display bias. As a definitional matter, display bias refers to the literal position of an airline’s flight offerings on a computer screen relative to the flight offerings of that airline’s competitors. Because CRS computer screens are only so large and can display only so much data, CRS-owning airlines had every incentive to design CRS software that prejudiced CRS displays in their favor.57 The concept and practice of display

54 Final Rule, supra note 34, at 977.
56 See, e.g., John Hughes, American Imposes Fees to Boost Annual Revenue, MIAMI HERALD, Sept. 3, 2004, at 3C (reporting the plans of American Airlines to charge fees to customers who book flights through its call centers and airport counters in order to re-direct customers to the airline’s website); see also Northwest Funnels Business to Websites, MIAMI HERALD, Aug. 25, 2004, at 3C (reporting Northwest Airlines’ plan to charge both customers and travel agents extra fees for domestic tickets that are not booked through its website).
57 Some observers noted:

Studies in the United States have found that the way the information is displayed in a computer reservation system has enormous influence on consumer choices. American Airlines, for example,
bias underscores the obvious importance of place and position of any flight listing on a computer screen with a finite amount of displayable data and lines of text. "Prominence in a commercial display system is a scarce good. If it is priced at zero, companies will engage in strategic behavior to get it. This can occur even in a seemingly objective ordering scheme; that is why the Yellow Pages, [for example] where the listings are alphabetical, has so many companies with names like AA-Aabco." At the heart of CRS regulations, then, display bias rules prohibited CRSs from biasing computer displays in favor of individual airlines, particularly the CRS-owning airline. The legal rationale for regulation was that display bias might both harm airline competition and cause consumers to be misled. In fact, airlines that owned CRSs confronted antitrust lawsuits alleging that CRSs unfairly prejudiced the displays in order to divert passengers to the CRS-owning airline itself.

At the outset of CRS regulation, numerous interests took opposing positions about the likely or actual impact of display bias rules as a deterrent to deceptive consumer practices. Initially, "[t]he CAB devoted most of its attention to the question of whether bias [was] unfair to businesses, and never much looked into the question whether it is harmful to consumers, despite an entreaty from the Federal Trade Commission that it do so." For that matter, a partisan characterization of the regulations prohibiting display bias was that "the point of the campaign testified to Congress that 92% of all ticket sales come from the first computer screen displaying information on a given market. 54% of sales come from the first line on the screen! This creates an overwhelming incentive for the carriers to bias CRS displays of flight information to favour the flights of the airline owner of the CRS. Even if CRS displays are unbiased, a "halo" exists which results in the agents favouring booking on the airline which owns the CRS.


58 Curse of the Mommy Tomb, supra note 4, at 56; see also Fred L. Smith, Jr., The Case for Reforming the Antitrust Regulations (if Repeal is Not an Option), 23 HARV. J.L. PUB. POL'Y 23, 34 (1999) ("The CRS operated much like a supermarket manages its shelves. Some items would receive priority shelf space, others would warrant only less preferred space.").

59 The DOT rejected First Amendment-based attacks on its regulation of bias display, reasoning that its regulation served to protect against misleading advertising. See, e.g., Final Rule, supra note 34, at 1003 (citing Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n, 447 U.S. 557, 563 (1980)).

60 Final Rule, supra note 34, at 1002.


62 Curse of the Mommy Tomb, supra note 4, at 56.
against bias was to demand that the government secure for rival airlines, for free, an increase in listing prominence that they were quite capable of bidding for." In any event, some analyses of the effects of CRS bias on traveler welfare and airline revenues determined that "travelers would lose $434 million (in 1990 dollars) from CRS bias, with people traveling for pleasure losing more than business travelers . . . . Carriers only gain $89 million from bias, for a dead-weight loss—the difference between carrier gains and traveler losses—of $345 million." However, the result of display bias may be more benign as "the welfare costs of CRS bias and the effects of redistribution on carriers are significantly overstated because, in fact, many travelers are not passive consumers." That is to say, for some industry observers, consumers are active investigators of the airline marketplace. Consequently, the introduction of new distribution channels into the airline marketplace have allayed the consumer-protectionist motive underlying display bias regulations. Consumers are no longer (if they ever were) relying solely or blindly upon a single information stream, and so are able to make informed travel decisions.

As introduced in Part III, supra, the Internet and airline divestment from CRS ownership have encouraged an end to display bias regulations. Accordingly, newly-deregulated CRSs likely will market bias themselves and offer, for example, the first two of six lines on a computer screen to carriers willing to offer low rates and to pay a premium. In the final analysis, the

63 Id. at 55.
64 MORRISON & WINSTON, supra note 39, at 64.
65 Id. at 66.
66 See, e.g., Paul Stephen Dempsey, Airlines in Turbulence: Strategies for Survival, 23 TRANSP. L.J. 15 (1995) ("Among the most powerful and ubiquitous computer systems in the world are those owned by airlines. 'They reduce the planet to microbits of electrons, allowing us to move about Mother Earth with ease, and book a flight, hotel room, or rental car anywhere we can imagine.' What a pity that this information stream is becoming so horribly polluted." (quoting Paul S. Dempsey, Airlines' Polluted Information Stream Harmful to Consumers, Hous. Chronicle, Oct. 2, 1994, at 5C.)).
67 See, e.g., Wark, supra note 13, at 12 ("The DOT is betting that other distribution channels are sufficiently developed to discipline CRS biasing . . . . consumers with options to CRS distribution have little incentive to select a biased distribution channel; thus, a biased CRS should pay a competitive price.").
68 Telephone Interview with David A. Schwarte, Executive Vice-President and General Counsel, Sabre, Inc. (Feb. 16, 2004); see also Wark, supra note 13, at 13 ("CRS discounts in return for access to content, like those now offered by Sabre and Galileo, were a first in the history of the CRS industry and represent a step in the right direction—even if . . . they do not yet reflect a true market price."). See
DOT decided neither to delimit the display of code-share flights nor to bar airlines from distributing software that can bias displays. The DOT noted that "[t]ravel agencies have to compete against other travel agencies, and their need to satisfy their customers should check their willingness to create biased displays."70

B. THE MANDATORY PARTICIPATION RULE AND CONTRACT ISSUES

Another hallmark of the CRS regulations was the so-called mandatory participation rule. Mandatory participation required an airline having more than a five-percent interest in a system to participate in competing systems at the same level at which it participated in its own system, provided that the other systems' terms for participation were "commercially reasonable."71 The mandatory participation rule also required that an airline owning its own CRS provide all systems with fares commonly available to subscribers of its own system.72 Moreover, in order to avoid airline dominance over certain markets, the DOT prohibited an airline from tying commissions to use of its CRS because dominance in the local CRS market would reinforce the airline's power in the local airline markets.73

As a corollary to the mandatory participation rule, CRS regulations banned "parity clauses" whereby airlines that owned CRSs were required to buy at least as high a level of service from the system as it did from any other system. The DOT reasoned that parity clauses imposed by CRSs denied airlines the ability to select their participation level and, therefore, prevented competition that might otherwise exist. That is, such provisions made it unnecessary for CRSs to compete for airline participation. Additionally, the DOT reasoned that "[p]arity clauses cause airlines either to buy more CRS services than they wish to buy from

also Hughes, Revenue, supra note 56, at 3C (relating Sabre Holdings Corp.'s decision to place Northwest Airlines fares lower in travel agent displays in response to Northwest's new policy of charging travel agents in order to offset an average $12.50 per booking.

69 Final Rule, supra note 34, at 1003, 1005.

70 Id. The DOT rejected the contention that its display bias rules violate the guaranty of free speech under the First Amendment of the United States Constitution. Id. at 1003; see also Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n, 447 U.S. 557, 563 (1980).

71 Final Rule, supra note 34, at 1009.

72 Id.

73 Id. at 1019.
some systems or to stop buying services from other systems that they would like to buy, which creates economic inefficiencies and injures airline competition." With its latest rulemaking, the DOT readopted its prohibition against "parity clauses," which will end at the end of July, 2004.

Similarly, some CRS regulations mandated access for CRSs to all airline fares. However, the Internet, with its ability to directly connect airlines and their potential passengers, has provided airlines with some leverage in negotiations with CRS vendors. For example, airlines might refuse to provide CRSs with a complete listing of their fares. In turn, CRSs, craving as much fare and other data as possible, would pressure airlines to provide all fare-related information as a condition precedent to the airline participating in that CRS. This practice is not countenanced by the remaining CRS regulations. That is, the DOT is barring systems from requiring an airline, as a condition to participation, to provide access to fares that the airline does not wish to sell through the system. The DOT supports this rule because it believes that a system's demand that an airline provide all publicly-available fares as a condition to any participation would be anti-competitive. The deregulated CRS marketplace will respond to this reality, for example, as Sabre and Galileo have developed programs exchanging lower booking fees for guaranteed access to all publicly-available fares. Accordingly, airlines may be empowered to use their control of webfares as a way of obtaining lower booking fees.

Finally, the DOT revised its rationale underlying regulation of important travel agency contracts. "Since the first CRS rulemaking, the rules have regulated the systems' contracts with travel agency subscribers in an effort to give travel agencies a greater opportunity to switch systems or use multiple systems (or booking channels)." The DOT regulated "the systems' subscriber contracts, because practices that limit competition between the systems were likely to impair airline competition. . . . Furthermore, system contracts that restrict competition between systems

74 Id. at 1005-06 (citing 62 Fed. Reg. 59,784).
75 Id. at 1007.
76 Id. at 1008.
77 Id. at 1007.
78 Id. at 1008. The DOT rejected Delta's and Northwest's proposal for a rule prohibiting systems from demanding access to information and benefits such as frequent flyer awards if an airline has chosen not to provide them.
79 Id. at 1016.
(or keep travel agents from using alternative systems and booking channels) would entrench the systems' existing market power . . . .”80 Subscriber contracts have changed in the last few years and the DOT has provided the following reasons for abandoning subscriber contract regulation:81

- CRSs no longer obtain contracts that will keep travel agencies from using other electronic channels for obtaining information and making bookings;
- a declining portion of subscriber contracts contain productivity pricing provisions; current productivity pricing provisions allow travel agencies to obtain bonuses (or avoid penalties) despite booking airline tickets outside the system;
- the length of the term of the typical subscriber contract has shrunk dramatically; and
- agencies' ability to obtain more flexible contracts is consistent with the finding that the systems compete aggressively for travel agency subscribers.

As such, the DOT saw no reason to maintain its existing rules, given that “market forces are enabling travel agencies to obtain less restrictive contracts and when the systems' contracts do not appear to impose unreasonable restraints on the subscribers' ability to switch systems or use several electronic information sources and booking channels in addition to their primary system.”82

In all, contract as a vehicle for establishing business relationships between airlines and CRSs, will become as important as ever in the deregulated CRS environment. The DOT's initial contract-based restrictions were predicated on the rationale that such clauses tended to maintain each system's market power and to reduce the ability of airlines to obtain better terms for participation.83 As of July 31, 2004, these prohibitions, like the rules respecting display bias, will end. Initially, “[t]he rule was intended to keep airlines that owned a system from using their dominance of regional airline markets to distort competition in the CRS business. [However,] [b]ecause no system is now owned by U.S. airlines, the rule currently has no practical effect on competition.”84 Arguably, in a deregulated CRS environment, airlines are better positioned to bargain and negotiate

80 Id. at 1016 (citing 57 Fed. Reg. 43,823-24).
81 Id. at 1017.
82 Id.
83 Id. at 1000-01.
84 Id.
higher participation levels in exchange for better terms of participation, an exchange foreclosed by the mandatory participation rule.\footnote{Id. at 1010.} As the CRS industry moves out of a regulatory environment, however, – the only environment the CRS industry has ever known – private contracts will replace government rules.\footnote{See Alexander & Lee, supra note 6.} In assessing the transition for regulation to deregulation, some commentators suggest that the success of a transition from a regulated to a free market may depend upon “the development of new institutions and market practices – for example, contractual arrangements . . . – to replace regulation in circumstances where some public policy problems may remain, even if the regulatory answers do not.”\footnote{John R. Meyer & William B. Tye, Toward Achieving Workable Competition in Industries Undergoing Transition to Deregulation: A Contractual Equilibrium Approach, 5 Yale J. on Reg. 273, 274 (1988).}

C. OTHER ABANDONED REGULATIONS

There are other salient features of CRS deregulation worth mentioning. With respect to “equal functionality” among the CRSs, the DOT apparently has resolved its concerns about “architectural bias,” whereby systems were designed to have features and functions enabling travel agents to obtain information and make bookings on the owner airline more reliably and quickly than on other airlines.\footnote{Final Rule, supra note 34, at 1008.} Thus, the DOT adopted several rules designed to equalize the functionality for CRS owner and non-owner airlines and required systems to give all participating airlines equal access to enhancements. The DOT also required CRS to provide equal treatment on the loading of information and prohibited systems from using default features that favored the owner airline.\footnote{Id. (citing 57 Fed. Reg. 43,814-16).} The DOT now accepts the position taken by the DOJ of eliminating the rule requiring equal functionality, except for a rule requiring equal treatment on the loading of information. That is, “[a]irlines should be able to bargain over functionality along with fees. Eliminating the rule, moreover, could encourage a system to share in the cost and risk of developing new functions . . . .”\footnote{Id. at 1009.}

At another level, with respect to booking fees and differential pricing, the rules prohibited CRSs from charging unreasonably
discriminatory booking fees. The DOT is eliminating this rule, adopting instead a “zero fee rule,” barring systems from charging airlines for participation. In this regime, given the divestment of all airlines from all systems, a CRSs decision to charge one airline lower fares than another will not be characterized as discrimination, but as differential pricing. The DOT rationalized that: “In most unregulated industries a firm is free to demand better terms from its suppliers, even if its competitors cannot successfully obtain the same terms.”

The DOT’s CRS deregulation also will impact the treatment of marketing and booking data. Traditionally, systems generated valuable data from bookings made by their subscribers, showing how many bookings were being made by individual travel agencies on individual flights operated by each airline in each market. Such information facilitated the analyses of traffic flows in individual airline markets and the booking patterns of individual travel agencies. The DOT has decided not to adopt a rule restricting access to this data. Thus, the DOT is eliminating the rule requiring the systems to make such data available to all participating airlines.

Data in the form of third-party hardware and software also will be impacted. Travel agents had been allowed to use their own hardware and software in conjunction with a CRS. Travel agents also were allowed to access any database with airline information or booking facility for airline services from that equipment. A CRS, however, could determine whether or not a travel agent/subscriber could access other databases or booking channels if a travel agent used the CRSs’ own equipment. The DOT now has determined that “the record does not indicate that systems in recent years have been placing roadblocks in the way of subscriber efforts to use alternative booking channels.” Furthermore, . . . the systems’ subscriber contracts are giving travel agencies increasingly more flexibility.”

91 14 C.F.R. § 255.6(a).
92 Final Rule, supra note 34, at 1011.
93 Id. at 1011 (citing 67 Fed. Reg. 69,399).
94 Id. at 1013.
95 Id. at 1014. DOT states that individual enforcement against an airline’s anticompetitive use of data is preferable to promulgation of rules on the matter. Id.
96 Id. at 1015.
97 Id.
98 Id.
99 Id.
100 Id.
quently, the DOT reasoned that CRSs "will be unable to impose contractual restrictions on their subscribers that would significantly restrict a travel agency's ability to use alternative source of airline information and booking capabilities, due in large part to the travel agencies' increasing need to access the Internet."  

V. AN INTERNATIONAL PERSPECTIVE

Like the CRS regulations in the United States first effected in 1984, the European Community (the "EC"), in 1989 adopted a CRS Code of Conduct (the "Code"). The EC Code was designed both to prohibit the direct use of market power by airline-owned CRSs to restrict competition and ultimately to avoid CRS market power itself. Deregulation impulses are strong in the EC and are motivated by the same factors informing the DOT's decision to deregulate in the United States:

[U]nintended effects of the CRS Code have gained more attention in recent years, as financially strapped carriers have faced ever rising booking fees even as they struggle to lower their distribution costs . . . . At the same time, changes in CRS ownership and technology are gradually eroding the key features of the competitive landscape for which the Code was designed. First, many CRSs have divested their airline ownership. Three of the four CRSs (Galileo, Sabre and Worldspan) no longer have any airline ownership, and Amadeus is now 40 percent publicly owned. Second, the Internet, which allows airlines to sell seats directly, is decreasing the CRS's role as an essential intermediary.

In the end, three paths seem likely in the EC with respect to CRS regulation: (1) complete elimination of the CRS Code of Conduct; (2) elimination both of the requirement that parent companies participate equally in all CRSs and the prohibition on discriminatory booking fees and other forms of discrimination by CRSs; or (3) adoption of a modified CRS Code, preserving the mandatory participation requirement and

101 Id. at 1015-16.
103 BRATTLE GROUP & NORTON ROSE, STUDY TO ASSESS THE POTENTIAL IMPACT OF PROPOSED AMENDMENTS TO COUNCIL REGULATION 2299/89 WITH REGARD TO COMPUTERIZED RESERVATION SYSTEMS IV (Oct. 2003).
104 Id at v.
corresponding requirement for airline-owned CRS vendors, in parent carriers’ home markets.\textsuperscript{105}

Meanwhile, in Canada, CRS regulations, which arose in June, 1995, were re-examined in a published report in October 2003.\textsuperscript{106} As in the airline market in the United States, so too has the Internet in Canada provided lower-cost distribution options for Canadian airlines, CRSs, travel agents, and consumer. Canada’s recommendations with respect to the CRS industry include total deregulation, including deregulation of travel agency contracts. Moreover, in Canada, airline-CRS relationships would be mostly deregulated although no Canadian airlines have CRS ownership. Finally, in contrast to the CRS policy in the United States, Canada would maintain a ban on biased displays and would require non-discriminatory access for airlines to CRSs except it would allow CRSs to charge airlines differential rates.

\textbf{VI. CONCLUSION}

While neither industry experts nor the very government officials deregulating the CRS industry purport to predict the future of the airline reservations industry, CRS deregulation in the United States likely will promote innovative distribution schemes that will benefit the consumers. The degree to which airlines, specifically, are successful in attaining leverage in negotiating booking fees with CRSs and in reducing their dependence upon CRSs as a primary distribution channel will determine, in large part, the need for any future regulation. CRSs, meanwhile, will be challenged to add value to both carriers and travel agents alike. “In the end, the DOT’s final rules . . . represent a policy determination that relying on mar-

\begin{footnotesize}
\begin{enumerate}
\item\textbf{105} Id.
\item\textbf{107} The Canadian report recognized that [I]t is apparent that industry events and technological innovation have overtaken some of the provisions of the [Canadian] Regulations. However, at the same time, it is recognized that CRSs will continue to be an important means by which airlines distribute their air services. Therefore, certain regulatory provisions, specifically those provisions requiring that the information available through any CRS operating in Canada is displayed in a comprehensive, unbiased and neutral way, must be maintained. Id. at 3412-13.
\end{enumerate}
\end{footnotesize}
ket forces, even in an admittedly flawed market, can be prefera-
ble to continued regulation.”108

108 See Wark, supra note 13, at 13; see also Richard J. Fahy, Observations on the End to CRS Regulation, Two Points of View, 18 AIR & SPACE LAW. 12, 16 (2004) (“Con-
sumers can expect lower ticket costs from the efficiencies of CRS distribution and competition from direct sales; airlines may achieve lower costs resulting from CRS distribution deals that were not possible when CRSs were forbidden to en-
gage in price discrimination; and travel agencies will benefit from the flexibility of terms CRSs [might offer].”).