Stopping the Tailspin: Use of Oligopolistic and Oligopsonistic Power to Produce Profits in the Airline Industry

James C. Lanik*

TABLE OF CONTENTS

* James C. Lanik obtained his B.A. in Economics from Lawrence College in 1992. He expects to graduate from the University of Denver College of Law in May of 1995.

I. INTRODUCTION

The worldwide airline industry employs over 21 million people[1] and accounts for $740 billion or 4% of the world's economic production. The continued economic viability of a nation depends on a healthy transportation infrastructure, however, the condition of the United States' airline industry is not healthy. Halfway through the second decade of airline deregulation, U.S. carriers face huge debt to capital ratios, excess capacity, rising costs, and non-existent profits. If the industry does not recover, one of two "unthinkables" will occur: the federal government will step in and re-regulate or free-marketeers will call for open skies with added competition from foreign carriers.

Both options present equally distasteful options for American airlines. Re-regulation brings about stability, but at what cost? Before deregulation, only the wealthy could afford travel by air. Under reregulation the middle class may again be kept from the skies. Where foreign carriers to have open access to all U.S. markets, domestic airlines would face difficulty competing with carriers subsidized by foreign governments.

To survive, the industry must drastically reduce costs, extract more money from the consumer per seat mile, or both. Presented here is a possible strategy for achieving those ends. This paper provides a history of the airline industry under regulation and discusses the present situation. Following this the theories of oligopoly and monopsony and their application to the U.S. airline industry are outlined.

II. HISTORY OF THE INDUSTRY

A. DEREGULATION ARRIVES

Senator Edward Kennedy's words as Chairman of the Senate Judiciary Subcommittee on Administrative Practice and Procedure[2] were the first drops of the deluge that would wash away regulation.[3] In 1975 Kennedy's subcommittee found that increased competition in the airline in-

1. Paul S. Dempsey, *The Prospectus For Survival & Growth in Commercial Aviation*, 23 TRANSP. L.J.(forthcoming summer 1995) (manuscript at 1, on file with author)(hereinafter Dempsey). If the industry were a country, in terms of economic production, it would rank higher than Canada. *Id.*

2. Incidentally, Senator Kennedy's committee did not have proper subject matter jurisdiction over deregulation. That power vested in the Senate Commerce Committee. PAUL S. DEMPSEY ET AL., AVIATION LAW AND REGULATION, 1-13 n.63 (abridged student ed. 1992) [hereinafter DEMPSEY ET AL., AVIATION LAW]

3. Kennedy opened the hearings by stating, "Regulators all too often encourage or approve unreasonably high prices, inadequate service, and anticompetitive behavior. The cost of regulation is always passed on to the consumer. And that cost is astronomical." *Id.* at 1-13 to 1-14.

dustry would not lead to predatory pricing, destructive competition, monopolization, as many had feared.[4]

With Jimmy Carter's entrance into the oval office in 1977, deregulation had a new champion. Carter felt he could win a quick political victory by advocating deregulation for all transportation, not just the airlines.[5] He appointed Alfred Kahn, a staunch deregulationist,[6] to chair the Civil Aeronautics Board ("CAB"). Kahn felt that deregulation: 1) caused higher fares than would otherwise exist; 2) misallocated resources; 3) promoted carrier inefficiency; 4) denied consumers their preferable range of prices and services; and 5) tended to motivate the industry to provide excess capacity.[7]

To fight these perceived evils, Kahn instituted a number of initiatives that loosened entry requirements and liberalized pricing. His efforts in the late 1970's appeared immediately successful as carriers offered lower fares, filled excess capacity, and recorded great profits.[8] Congress passed the Airline Deregulation Act of 1978 to further the trend of deregulatory success. The Act provided for the elimination of price regulation and most entry controls[9] as well as for the demise of the CAB.[10]

Deregulation opponents thought the Act would lead to destructive competition and ultimately to nationwide oligopoly or even monopoly.[11] Proponents countered, asserting concentration was unlikely because of low barriers to entry, the apparent lack in the industry of economies of scale, and contestable markets.[12] Kahn dismissed oligopoly fears stating that even though the natural market structure could support only a few carriers, those few would provide enough competition if the government would refrain from interfering.[13] Even if a firm could monopolize the industry, Kahn theorized, the lack of both barriers to entry and economies of scale would permit new entrants to share in the monopoly rents

4. *Id.* at 1-14. The subcommittee also examined fears that increased competition would lead to reduced service to small communities, destruction of the existing air service network, reduced safety standards and greater financing difficulties. *Id.*

5. President Carter signed into law the Air Cargo Deregulation Act, Pub. L. No. 95-163, 91 Stat. 1285; the Airline Deregulation Act of 1978, Pub. L. No. 95-504, 92 Stat. 1705; the Staggers Rail Act of 1980, Pub. L. No. 96-448, 94 Stat. 1895; and the Motor Carrier Act of 1980, Pub. L. No. 96-296, 94 Stat. 793. DEMPSEY ET AL., AVIATION LAW, *supra* note 2, at 1-15.

6. Kahn, as Chairman of the New York Public Utilities Commission, advocated deregulation to the Kennedy Subcommittee. *Id.* at 1-16.

7. *Id.*

8. *Id.*

9. Applicants were still required to be "fit, willing, and able" to commence air service. *Id.* at 1-18.

10. The CAB was the first major federal agency to be "sunsetted." *Id.*

11. *Id.*

12. *Id.*

13. *Id.* at 1-20.

earned by the lone firm.[14] In a presentation to the Aviation Subcommittee of the House Public Works and Transportation Committee, Kahn voiced his optimism: "I am confident that . . . consumers will benefit; that the communities throughout the nation — large and small — which depend upon air transportation for their economic well being will benefit, and that the people most closely connected with the airlines — their employees, their stockholders, their creditors — will benefit as well."[15]

B. The Post-Deregulation Condition of the Industry

Many would feel after a statement like that, Mr. Kahn should stay out of the soothsaying business. The airline industry stands today perilously close to the brink of ruin. In the first fifteen years of deregulation, the net profit of the worldwide industry equalled 0.6% of revenue.[16] The industry has performed even more poorly over the last four years: in 1991, the industry lost $6.7 billion, $8.4 billion in 1992, $2 billion in 1993 and $1.5 billion in 1994.[17]

The United States' airline industry has fared little better. Since deregulation in 1978, the losses of the major U.S. airlines equal $7.7 billion, with a $1 billion loss in 1993 alone.[18] The most disturbing statistic is that of the debt owed by U.S. carriers; their combined debt of $35 billion totals more than eight times the entire accumulated profit of the industry from 1920 to 1988.[19]

With such a high debt, many analysts feel that the airlines need operating profit of 4% just to service that debt, and 6% if they wish to modernize their fleets.[20] In addition to huge capital outlays required to bring fleets into the twenty-first century, the industry must pay between $250

14. This essentially is the theory of contestability. *Id.* at 1-19.

15. *Id.* at 1-21.

16. Gross revenue equalled $2 trillion, and operating expenses equalled $1.96 trillion; operating profit was just 2% of revenue. Dempsey, *supra* note 1, manuscript at 2.

17. The figures for 1993 and 1994 are estimates. *Id.* at 2.

18. The airlines may break even in 1994. *Id.*

19. *Id.* Wall Street analysts have downgraded the airlines' debt to junk status, and would probably go lower except no lower rating exists. Julius Maldutis has noted that the federal government would put the airlines into receivership and liquidate them if they were savings and loans. *Id.* at 8. Total debt to capital ratios equal about 70% for most major airlines. *Id.* For a firm-by-firm listing of debt to capital ratios, *see* Dempsey et al., Aviation Law, *supra* note 2, at 2-32.

20. Dempsey, *supra* note 1, manuscript at 7. The United States has the oldest fleet in the world. Dempsey et al., Aviation Law, *supra* note 2, at 2-5. Manufacturers intended for their airframes to last about 20 years or 60,000 cycles. In 1989, 32% of the U.S. fleet exceeded 20 years. *Id.* The General Accounting Office predicts that by 2000, 64% will exceed 20 years of age. Boeing predicts by 2000 the world's airlines will take delivery of $380 billion worth of new aircraft and another $500 billion in the decade after that. *Id.*

billion and $350 billion for airport infrastructure improvements.[21]

III. The Economics of the Industry

A. Costs as the Culprit

High input costs stand out as the main reason the U.S. airline industry has performed so poorly.[22] Overall, the industry's operating expenses rose 94% from 1978 to 1984.[23] Equipment rentals and travel agent commissions rose the most from 1980 to 1990.[24] As in most service industries,[25] labor costs still make up the bulk of operating expenses, although their share of the total has fallen.[26] Fuel costs and interest payments will not stay as favorable as they are now.[27] Airlines also probably will not see any of the beneficial tax reforms they have recommended to Congress.[28]

Low labor costs do not ensure success. Even though Continental and TWA broke the unions they faced, they could not avoid bankruptcy.[29] Analysts classify the airline industry into thirds based on cost to profit ratio; the bottom one third is low-cost.[30] The expenditures of the low-cost portion of the industry are only 5% lower than the high-cost carriers. Lowering labor and travel agent commission costs, could drop the high-cost upper two-thirds into the realm of low-cost carriers.

---

21. Dempsey, *supra* note 1, manuscript at 2. Some of that money will come from taxpayers, concessions, parking, and other sources, but the bulk will come from the airlines in the form of gate, counter and hanger leases, landing fees, air control fees, passenger facility charges, fuel and other taxes, and ground service fees. *Id.*

22. Many other factors combine to produce industry anemia, but the airlines can exert the most control over costs. Some other problems the industry faces are: 1) overcapacity as a result of schedule frequency, high fixed costs, and product perishability; 2) flat domestic demand growth; and 3) schizophrenic price structure, including price wars. For an in depth discussion of these factors, *see* Dempsey, *supra* note 1, manuscript at 3-7.

23. Dempsey et al., Aviation Law, *supra* note 2, at 2-37.

24. Rentals went from 1.8% of total operating expenses to 7.1% of the total. In their effort to buy more and more traffic, the airlines bid up the cost of travel agent commissions which made up 10.0% of operating expenses in 1990, up from 3.4% in 1980. *Id. See also* Dempsey, *supra* note 1, manuscript at 11.

25. Dempsey, *supra* note 1, manuscript at 25.

26. In 1980, labor costs accounted for 37.3% of operating costs. In 1990, that figure had fallen to 33.8%. Dempsey et al., Aviation Law, *supra* note 2, at 2-38. Former United States Secretary of Transportation Samuel Skinner blames the airlines' woes on these high labor costs. A view with which the three authors mentioned above disagree with. *Id.*

27. *See* Dempsey, *supra* note 1, manuscript at 6.

28. The National Commission to Ensure a Strong Competitive Airline Industry recommended tax reform for the benefit of the airlines. Congress, worried about its own debt problems, probably will not enact any of these proposals. Dempsey, *supra* note 1, manuscript at 11.

29. *Id.* at 23. Continental's seat per mile cost is 8.35 cents, the lowest in the industry, but the airline has been through Chapter 11 bankruptcy twice. *Id.* at 23 n.97.

30. *Id.*

B. Economic Nature of the Industry

A pure monopoly is rare. Most markets fall somewhere along the continuum between perfect competition and pure monopoly; imperfect competition results.[31] The airline industry, while made up of more than one product provider,[32] exhibits a number of monopolistic characteristics. First, airlines can sell tickets on other airlines.[33] While this practice does not occur as much as it once did, one airline will often sell a consumer a competitor's product, a seat on a particular flight, in order to give the customer a more convenient time or connection to a city unserved by the first airline.[34]

Second, consumers see the airlines' product as basically fungible and inevitably choose the cheapest fare between A and B.[35] Additionally, each airline sells most of its tickets through travel agents who also sell for other airlines.[36] To facilitate this practice, the airlines developed computer reservation systems ("CRS") allowing travel agents instantaneous access to the fares, schedules and seat availability of the entire industry.[37] These factors result in one group of sellers handling essentially the same product at the same price.[38] Thus, what at first blush appears an industry with some competition in it, suddenly looks like a monopoly.[39] See

---

31. Professor Samuelson summed it up best:"[W]e are not saying that the owner of an imperfectly competitive firm is of poor character, that he beats his wife, or fails to pay his bills. Nor does the fact that a firm is an imperfect competitor mean that it is not keenly seeking to outsell and out advertise its rival. Intense commercial rivalry and 'perfect competition' are not at all the same thing." Samuelson at 485.

32. The first danger of monopoly is defining the relevant product. Here, the product is defined as a seat on an aircraft flying from *A* to *B* at time *T*, arriving at *T'*.

33. Robert E. Cooper, *Communication and Cooperation Among Competitors: The Case of the Airline Industry*, 61 Antitrust L.J. 549 (1993)(hereinafter Cooper).

34. *Id.*

35. This practice makes airlines reluctant to raise prices above the market rate, due to loss of business that will surely result. *Id.* at 550.

36. *Id.*

37. *Id.* For a more thorough review of Computer reservation systems (CRS), *see* Dempsey et al., Aviation law, *supra* note 2, at 2-31.

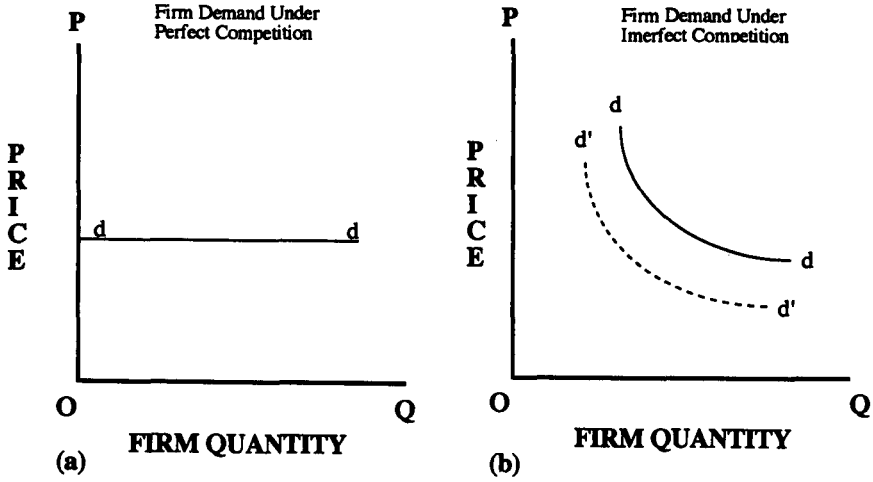
38. *See* infra, part II.C. for a discussion of oligopolies.

39. A brief recap of basic economics is in order at this point. Perfect competition is found in an industry where no producer has control over the selling price. Each firm within the industry faces a horizontal demand curve, along which it can sell as much or as little as it chooses. *See* Paul A. Samuelson, Economics 484 Fig. 1(a)(1985)(hereinafter Samuelson). A monopoly, as mentioned above, has some control over the price it sets. Thus, in economic terms, a monopolist faces a downward sloping demand curve. *See id.* at Fig. 1(b). As the monopolist sells more, the price falls. For maximum profit, the monopolist should sell each product unit at a prices based on how much each individual consumer is willing to pay. *See also*, Figures 3 and 4(a) and (b). Robert L. Heilbroner & Lester C. Thurow, Understanding Micro-Economics 175 (1975) (hereinafter Heilbroner & Thurow). *See* Figure 2.

However, this practice amounts to an auction and can be difficult to accomplish unless the seller has the ability to change the price for each buyer. Enter the CRS. Through travel agents,

Figures 1 and 2.

FIGURE 1



Yet this conclusion begs the questions: how does one characterize the airline industry and how one may one predict the behavior of the individual participants in such an industry? Economists classify the airline industry as an oligopoly. An oligopoly may be of two types. The first consists of a few selling an identical product.[40] The second has a few sellers selling a differentiated product.[41]

Oligopolists tend to compete with one another through advertising, product differentiation and service rather than price.[42] The oligopolist

---

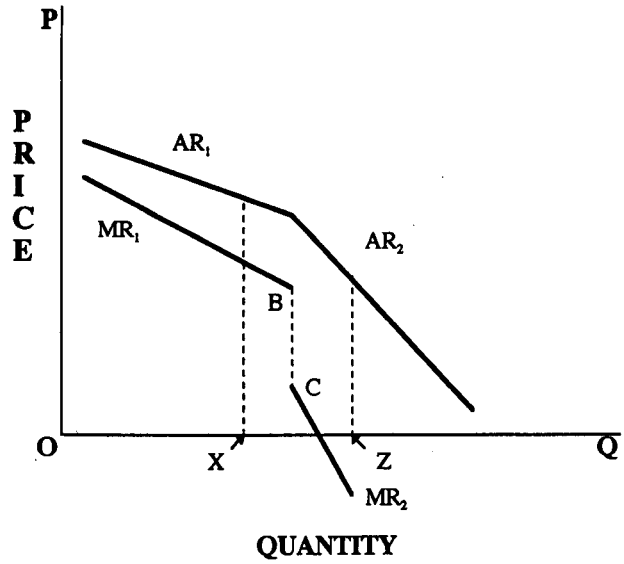
the airlines quote different prices to different buyers based on the consumers's flying requirements. Tickets purchased far in advance tend to have lower fares than those purchased closer to the time of departure. People who buy their tickets in advance tend to be discretionary vacation travellers and do not have the desire to pay enormous sums for their tickets. Business travellers, on the other hand, must fly on short notice and generally do not care how much the ticket costs as long it gets them from A to B when they want to go. A firm monopolizes a market when its costs fall indefinitely. SAMUELSON, at 486. If costs begin to rise but make up a large portion of the total industry demand, then an oligopoly results. *Id.*

40. SAMUELSON, *supra* note 39, at 489.

41. *Id.* at 490. This type of oligopoly fits more closely to the automobile industry. Only a few sellers dominate the market, but they do not produce identical products. A Chevrolet Blazer differs from a Nissan Pathfinder which differs from a Toyota 4Runner. The airline industry more closely resembles the first model. Many different sellers (American, United, Delta, etc.) provide basically the same product: air transportation from point A to point B. *See* Cooper, *supra* note 33, 549.

42. HEILBRONER & THUROW, *supra* note 39, at 179.

FIGURE 2



views competition by price as self-destructive, while other economic models allow a firm to shift its demand curve to the right.[43]

C. OLIGOPOLY THEORY AND PREDICTING OLIGOPOLIST'S BEHAVIOR

The oligopolist does not face the traditional downward sloping demand curve. Instead, the oligopolist faces a "kinked" demand curve,[44] resulting from a highly elastic demand when prices are raised and an inelastic demand when prices are lowered. The curve bends exactly at the point of the equilibrium price.[45] When an oligopolist raises price even slightly many of the oligopolist's customers shift to new suppliers who have not raised their prices.[46] Conversely, if an oligopolist lowers price, other market participants also lower their prices to keep their custom-

43. *Id.* Price competition affects not only the individual oligopolist's revenues, but also the entire industry's. Occasionally, however, price wars do occur. During the time of the Robber Barons, the Vanderbilts and the Drews would cut and recut prices on their parallel rail lines. SAMUELSON, *supra* note 39, at 505. Witness the frequent fare wars in which airlines today engage.

44. HEILBRONER & THUROW, *supra* note 39, at 180. *See also* SAMUELSON, *supra* note 39, at 514-15.

45. HEILBRONER & THUROW, *supra* note 39, at 180.

46. *Id. See also* SAMUELSON, *supra* note 39, at 515.

ers.[47] This kinked demand curve thus creates a discontinuous marginal revenue curve at the point of the kink.[48] As no one point of intersection exists between the marginal revenue and marginal cost curves, the oligopolist's prices can change a great deal before price or output must change.[49]

1. Oligopoly Pricing

In a perfectly competitive world, firms maximize short run profits.[50] Those that fail to do so exit the market.[51] However in an oligopoly, large firms need not make every dollar possible to survive.[52] Game theory developed to predict the way oligopolists behave absent the assumption of short-run profit maximization.[53] Noncooperative[54] game theory states

47. HEILBRONER & THUROW, *supra* note 39, at 180. "After experience with disastrous price wars, each of the few rivals who dominate a given market is almost sure to recognize that price cutting begets price cutting. So the typical oligopolist will estimate his demand curve . . . by assuming other will be charging similar prices . . . [and] will settle for sizable markup of [price] over [marginal cost]." SAMUELSON, *supra* note 39, at Fig. 26-1 514.

48. HEILBRONER & THUROW, *supra* note 39, at 180-81.

49. Figure 2 may help to explain the discontinuity of the marginal revenue curve. "Notice that our oligopolist has two demand curves, one above and one below the kink. Call them AR1 and AR2, and their respective marginal revenue curves, MR1 and MR2. Suppose our firm is selling a quantity OX just to the left of the kink. It will be working on AR1 and will enjoy the marginal revenue BX from its output. Now suppose it shifts to an output just to the right of the kink and sells output OZ. It has shifted from AR1 to AR2, and its marginal revenue curve is now MR2. Notice that this marginal revenue is ZC. You can see that at the point of the kink there will be a sudden shift from MR1 to MR2 with a discontinuous drop. What this means is that if our oligopolist went below the kink (which would mean that he dropped his price and that all his competitors followed suit), his marginal revenue would no longer sink slowly, but would suddenly plummet to a new lower level." HEILBRONER & THUROW, *supra* note 39, at 180.

One must note that the airline industry faces two distinct demand curves: an inelastic one for the business traveller and an elastic one for the discretionary traveller. Exploring these demand curves and their inherent kinks and discontinuities is best discussed elsewhere.

50. *Id.* at 181-82.

51. Economists base their work on assumptions; they comprise the backbone of economics. The world contains far too many variables for the human brain to handle. In order to simplify the theories, economists introduce assumptions.

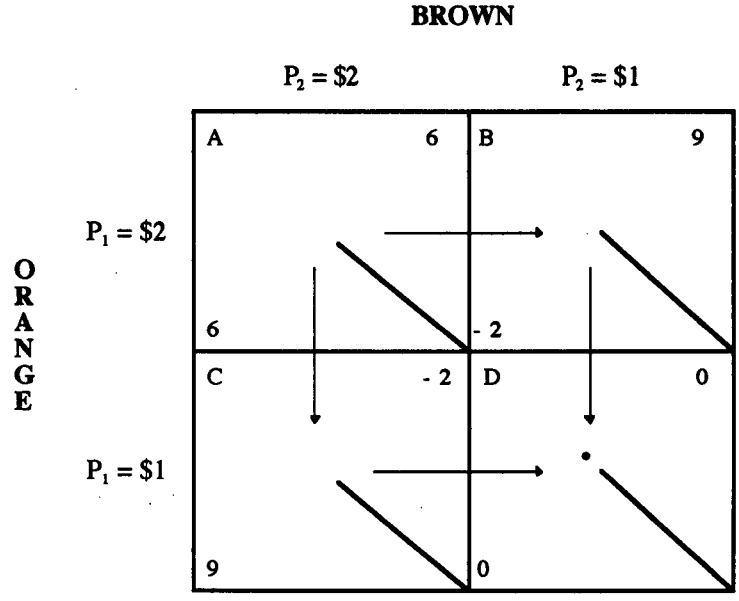
52. *Id.* at 182.

53. The term "game theory" may sound frivolous, but it has become one of the most important tools for predicting the behavior of oligopolists. Samuelson, supra note 43, at 505. John von Neumann, Hungarian-born mathematician and co-inventor of the United States' hydrogen bomb, did much of the development of game theory. *See* JOHN VON NEUMANN & OSKAR MORGENSTERN, THE THEORY OF GAMES AND ECONOMIC BEHAVIOR (1953). No one has yet arrived at a single theory to explain all oligopolistic behavior, each model having applications to particular industries. Dennis A. Yao & Susan S. DeSanti, *Game Theory and the Legal Analysis of Tacit Collusion*, 38 ANTITRUST BULL. 113, 122 n.1 (1993)(hereinafter Yao & DeSanti).

54. Cooperative game theory "allows participants to make binding agreements that restrict their feasible strategies . . . and is not generally used to analyze oligopoly games." Yao & DeSanti, *supra* at 122. *See generally* J.W. FREIDMAN, OLIGOPOLY AND THE THEORY OF GAMES (1977).

that a manager, "in solving his or her own problem, . . . solves what he or she understands to be the other managers' strategic problems."[55] The theory assumes every manager adopts the best strategy based on predictions of competitors' best strategies; it is not merely that managers take likely behavior into account.[56] This approach offers insights into how market participants act against each other in an interdependent world.[57]

FIGURE 3



To illustrate the operation of game theory in a price war, assume two players face the profit-payoff matrix as shown in Figure 3.[58] Orange selects its price strategy by picking a row, Brown by picking a column. The number in the lower left of each cell represents Orange's profit-pay-

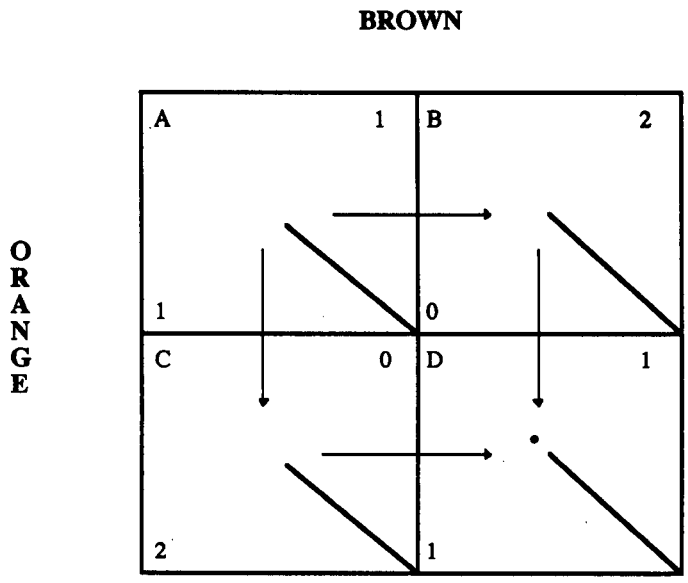
55. Yao & DeSanti, *supra* note 53, at 122.

56. *Id.* at 123.

57. SAMUELSON, *supra* note 39, at 514 n.3. Professor Samuelson offered some examples: "[a] teacher picks quiz questions *at random* from a book; a watchman makes his rounds at random, not in a discernible pattern. Facing you as a smart rival, I shall work hard to maximize my *most vulnerable* defense, knowing that you will find out the weakest link in my chain. I bluff at poker, not simply, as some think, to win a pot with a *weak* hand, but rather to ensure that all players do *not* drop out when I bet high on a good hand." *Id.*

58. The following scenarios are single-shot games and do not take into account history (as would repeated games). *See* Yao & DeSanti, *supra* note 39, at 122-23. Assume that the players have imperfect information about the other.

FIGURE 4A



off, and the number in the upper right of each cell represents Brown's profit-payoff. The most mutually beneficial position lies in Cell A, where both players make $6 and both charge $2. Each realizes that by undercutting the other's price it can raise profits for itself while driving the other out of business (cells B and C). When they both do this, neither makes any money, and they reach an equilibrium in cell D.[59]

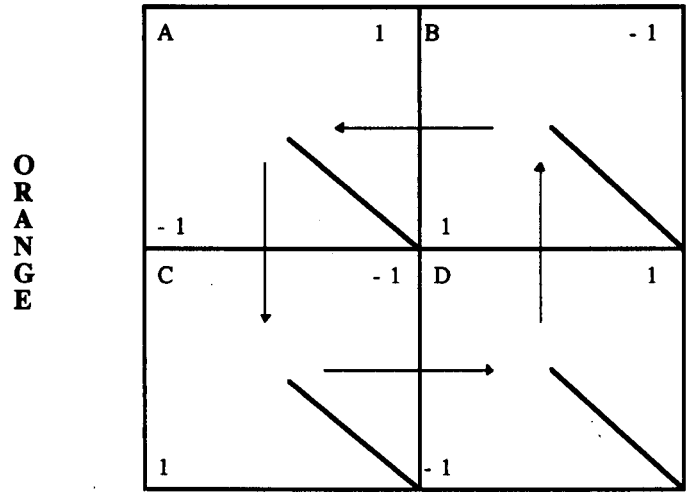
A different outcome may result in constant sum games[60] where the Brown and Orange payoffs are the same amount for each cell. *See* Figure 4: In (a) the game starts in cell A with each achieving a $1 profit-payoff. Undercutting the player's price and seeking to move to cells B or C changes maximum individual profit to $2. This strategy leaves the players

59. This outcome assumes a lack of collusion (which may fit into American jurisprudence regarding antitrust law). *See* SAMUELSON, *supra* note 39, at 506. Von Neumann developed a theory of collusion involving more than two participants. "Trivial example: Given three sadists, we can assume some two will gang up on the third. More profound example: Given universal suffrage, the majority will legislate in some degree against the minority of plutocrats — who in turn can be expected to use their financial power to try to limit this redistribution." *Id.* at 507. Those readers with backgrounds in the social sciences may recognize this example as a variation on the prisoners' dilemma. *See Id.*

60. In a constant sum game, the sum of the gains or losses for each player remains the same, regardless of the choices made by each participant. The most familiar type is the zero sum game. Whatever one player wins, the other loses.

FIGURE 4B

BROWN



at the stable saddlepoint in cell D.[61]

In (b), again assume a starting point in cell A, the players revolve counterclockwise around the matrix. The difference here lies in the fact that the constant sum now equals zero. Since one player in each cell has an incentive to shift price, they oscillate forever.[62]

2. *The Herk Model*[63]

The model selected to illustrate behavior in the airline oligopoly comes from a duopoly model created by Leonard F. Herk applying Cournot behavior theories.[64] This model has two distinct stages. In the

61. A saddlepoint gives maximum orange numbers in its row and minimum orange (and maximum brown) numbers in its column. SAMUELSON, *supra* note 39, at 506 n.5.

62. "Von Neumann proves this remarkable theorem about (b); namely, each player should introduce randomized strategies: thus, if each picks [$1 or $2] with equal and independent probabilities, neither can then gain in average payoff by departing from this stable, minimax saddlepoint solution. Using probabilities, each constant sum matrix has a saddlepoint." *Id.*

63. Leonard F. Herk, *Consumer Choice and Cournot Behavior in Capacity Constrained Duopoly Competition*, 24 RAND J. ECON. 399 (1993)(hereinafter Herk).

64. See *Id.* A duopoly market contains only two sellers. It is a specific type of oligopoly, much in the same way a square is a specific type of rectangle. It seems that Herk's conclusions regarding duopolies hold true for the airline oligopoly. Unfortunately, a full discussion of Cournot behavior is beyond the scope of this article.

first, the participants choose their output capacities and incur their production costs.[65] In the second, they engage in price competition where each firm sets independent prices but considers the aggregate capacity of the first stage.[66] Firms produce up to their specified output capacity without cost, but cannot produce more than this.[67] Total sales for the firm equal the lesser of residual demand or capacity.[68]

Residual demand is a function of a firm's price and capacity in relation to other firms' prices and capacities.[69] Consumer selections between firms that set different second stage prices affect residual demand.[70] Herk theorizes that consumers first attempt to purchase all of the quantity demanded from the lowest cost firm; the unsuccessful consumer then tries to purchase at the higher priced firms until either the producers fulfill all demand or capacity becomes exhausted.[71] Under this model, the residual demand of the high-priced firm equals the industry demand minus the low-priced firm's capacity.[72] Such a parallel shift demand specifi-

65. Here, capacity is defined as the number of seats that an airline has available between a certain city pair at a certain time. This model assumes that all participants face the same cost function for the capacity chosen. Herk, *supra* note 63, at 402.

66. Each firm will attempt to maximize profits. Thus, under Cournot competition, "firm *i*'s profit from choosing *ki* units of capacity, given *kj* units of capacity at firm *j*, is $kiPi(ki + kj) - c(ki)$", where k^* equals capacity, $P(*)$ equals the market inverse demand function (price), and $c(*)$ equals the capacity cost function. *Id.* at 402.

67. *Id.* at 399. For other economists' views on capacity constrained markets, *see* M. J. OSBORNE AND C. PITCHIK, *Price Competition in a Capacity-Constrained Duopoly*, 38 J. ECON. THEORY 238 (1986).

68. Herk, *supra* note 63, at 402.

69. *Id.* at 399, 402.

70. *Id.* at 399.

71. *Id.* at 399-400. This model of consumer behavior assumes that the low-price firm efficiently allocates its capacity between those consumers that value the product more and those that value it less. *Id.* This assumption lends itself well to the airline industry. With the CRS, an airline may almost perfectly price discriminate consumers.

72. *Id.* at 400. This efficient rationing results in a "parallel shift" residual demand specification. However, most sellers cannot efficiently discriminate between consumers. Instead, they ration their goods on a first-come, first-serve basis. *Id.* This rationing approach causes the low-price producer to sell some goods to consumers that would not have demanded goods from the high-priced producer. Residual demand at the high-priced firm then exceeds what it would be under efficient rationing. This template neatly overlays the airline industry. Most consumers consider a seat on an aircraft flying to a specific destination at a specific time fungible. Let's assume that 225 people want to fly from Denver to Cedar Rapids on Monday at 11:15 in the morning. Seventy-five people would pay $300 dollars for a seat, 75 people would pay $250 for a seat, and 75 people would pay $200 for a seat. Airline A offers 100 seats to Cedar Rapids on Monday at 11:15 for $200 per seat and Airline B offers 100 seats to Cedar Rapids on Monday at 11:15 for $250 per seat. With efficient rationing, the 75 people willing to pay $300 for a seat (those with the highest valued demand units) all successfully purchase seats on Airline A. Of those people willing to pay $250, 25 will get seats on Airline A and the other 50 will fly on Airline B for $50 more. Airline B still has 50 seats to sell but will not sell them. The remaining 75 people who wish to go to Cedar Rapids do not value the trip enough to make the journey. Airline B will fly to Cedar Rapids only half full.

cation leads firms to choose Cournot capacity at the first stage and name Cournot prices at the second.[73]

Residual demand leads to a limited number of outcomes in the market.[74] Certainly, a firm that underprices its rivals sells the lesser of its capacity or market demand. The firm that overprices its rivals sells only that the capacity remaining after those firms with lower prices have sold their capacity.[75] If all firms state the same price, they will share market demand. If aggregate capacity exceeds market demand, then each firm has unsold capacity.[76] If a firm refuses to overprice the rival firms who name the market clearing price, that firm will also not overprice the rivals setting a higher price.[77] Thus, if the residual demand at the high price firm is equal to or less than it would be under a parallel shift specification, the market ends in equilibrium.[78]

These outcomes assume consumers face no switching costs. That is, there is no cost for a consumer to shift purchases between the products of different firms. Switching costs in the airline industry include frequent flyer programs, brand loyalty and familiarity, and convenience.[79] Switch-

73. *Id.* Herk bases this conclusion on another study. *See* D.M. Kreps and J.A. Scheinkman, *Quantity Precommitment and Bertrand Competition Yield Cournot Outcomes*, 14 BELL J.ECON. 326 (1983). If participants repeat the second stage sub-game indefinitely using the parallel shift demand specification, the firms will maintain excess capacity and earn profits higher than the Cournot profit rate. Herk, *supra* note 63, at 400 n.1. Airlines select capacity by choosing what size aircraft to use on a given flight. After they make their selections, they engage in price competition until the flight departs.

74. *Id.* at 404.

75. The residual demand at the high-price firm does not depend on its own capacity and decreases as its rival's capacity increases. *Id.*

76. All the airlines set the same price and have excess capacity. The price they set is above the market clearing price, but they still do not make any money because their cost function c(*) is too large. Since the demand for air travel is basically elastic, any attempt to increase price to increase revenue will fail. In any other industry, participants would, at the next time the first stage rolls around merely decrease capacity. Such behavior is more difficult in the airline industry. If United sets capacity at 100 seats going from Denver to Cedar Rapids, and only 50 people fly there, United has 50 seats of excess capacity. If United knows that only 50 people will fly to Cedar Rapids, it should reduce capacity to 50 in the next first-stage. United may not be able to do that because aircraft have a (more or less) fixed number of seats. If excess capacity is 5 seats, taking those 5 seats out at the next first-stage really doesn't make any difference. Marginal cost for each passenger is minuscule, except for one passenger. In this example, the 101st person who wants to fly to Cedar Rapids creates a huge marginal cost for United; they must get another aircraft fill it with fuel, staff it, feed the passenger, etc. Every passenger after that again has low marginal costs.

77. Herk, *supra* note 63, at 404.

78. *Id.* at 407.

79. To illustrate convenience, assume that someone wants to fly from Chicago to Dallas. That person could fly United from O'Hare into Dallas-Fort Worth Airport, or he or she could fly Southwest from Midway into Dallas Love. Both Midway and Dallas Love are located far away from their respective city's center. The added inconvenience of long travel time may discourage a traveller from selecting the lower priced seat. Many travellers, especially those accustomed to

ing costs affect the derivation of a firms' residual demand.[80]

To see how these costs affect residual demand, assume the second stage subgame consists of a number of trading periods.[81] Essentially, in every period each firm conducts an all-or-nothing lottery for its product. Absent switching costs, consumers that do not win the lottery and do not purchase the product may, without cost, try again at the high-priced firms. However, with switching costs, some consumers do not attempt to purchase from a high-priced firm where the cost of the product plus the switching cost exceeds the amount that the consumer would pay.[82] High switching costs for all or most consumers result in stable consumer allegiances to individual firms.[83]

D. Monopsony Theory[84]

A monopsony occurs when only one buyer exists in a particular market.[85] By exercising monopsony power, the buyer has the ability to affect the offering prices of sellers.[86] This is not to say that the monopsonist has the power to set the price at which it may buy the goods, but rather that

---

flying before the days of deregulation, may see Southwest's lack of service as a huge cost in comparison to the free Chivas Regal they enjoyed in the 1970's.

80. Herk, *supra* note 63, at 401.

81. That is, assume that the firms have established their capacity and engage only in price competition. *Id.*

82. Take another look at the person wishing to go from Chicago to Dallas. Assume that the would-be traveller has many frequent flyer miles with United lives near O'Hare but far away from Midway, and desires to go to a place near Dallas-Fort Worth but distant from Dallas Love. Even though a ticket from Chicago to Dallas on Southwest may be hundreds of dollars cheaper than a comparable flight on United, the added costs to the particular traveller of flying Southwest may outweigh the dollar benefits.

83. Herk, *supra* note 63, at 401. Remember that the second stage can consist of many different trading periods. Herk assumed that switching costs would be sufficiently high to preclude consumers from switching producers during the second stage. *Id.* at 408. This assumption does not mesh perfectly with the airline industry. Business travellers tend to have very inelastic demand curves. If they can not get the lowest fare, they will usually try again until they get a seat on a flight going where they want at a time they want. Their switching costs are low. The discretionary traveller, if unable to secure the lowest fare, may not try to obtain another flight on a higher priced carrier . In effect, the discretionary traveller is locked out of the second-stage trading periods. Only when the first-stage comes around again can they reenter the market.

84. While the airline industry seems to more closely represent an oligopsony, monopsony theory is discussed in this section because monopsonies more easily lend themselves to graphic representation. Further, the results may be generalized to an oligopoly.

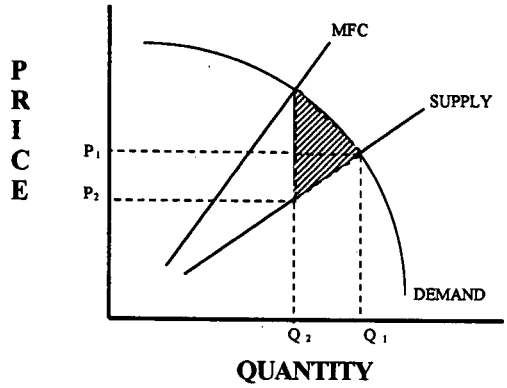
85. While the buyer can be at any stage of production, for the purposes of this paper, the buyer purchases intermediate goods to use for the production of a finished product. Jonathan M. Jacobson and Gary J. Dorman, *Joint Purchasing, Monopsony and Antitrust*, 36 Antitrust Bull. 1 (1991)(hereinafter Jacobson & Dorman). The tobacco market regulation and the National Collegiate Athletic Association's (NCAA) regulation of athletic competition and scholarships during the early part of this century are examples of oligopsony and monopsony, respectively.

86. *Id.* at 5.

the amount of the goods the monopsonist purchases affects the price the buyer pays.[87]

Ignoring the effect of purchases on the prices paid for the product, the monopsonist buys at the point the supply and demand curves intersect.[88] In Figure 5, those amounts are shown as Q1 and P1. This intersec-

FIGURE 5



tion represents the point of maximum social welfare, or the sum of the consumer and producer surpluses.[89] Producer surplus is the entire area above the supply curve and below P1; consumer surplus is the area under the demand curve and above P1.[90]

The monopsonist likely considers the effect of its purchases on the price of the input. Through this consideration, it knows that its profit maximization point does not lie at the intersection of the supply and demand curves. Instead, it buys where the total increase in costs resulting from the purchase of at least one unit of the product[91] intersects the de-

87. Assume that the supply curve for the goods slopes upward. If the monopsonist restricts purchases, price paid goes down; if the monopsonist expands purchases, price goes up. *Id.* The monopsonist may be able to push the sellers into an all-or-none supply case.

88. Roger D. Blair and Jeffrey L. Harrison, *Antitrust Policy and Monopsony*, 76 CORNELL L. REV 297, 301 (1991)(hereinafter Blair & Harrison, *Antitrust*). This outcome results from a perfectly competitive market. *See also* Jacobson & Dorman, *supra* note 85, at 6.

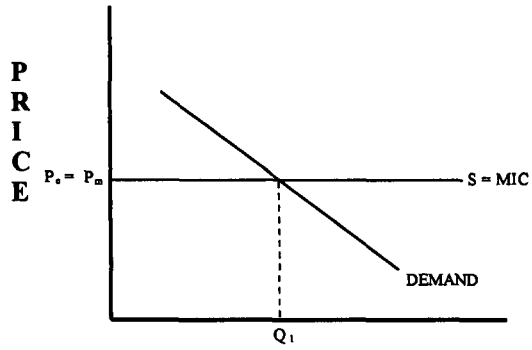
89. "Consumer surplus represents the difference between what consumers are *willing* to pay for a good and what they have to pay in the market. Producer surplus analogously represents the difference between the price that producers are willing to accept and what they receive in the market." (emphasis in original) Blair & Harrison, *Antitrust*, *supra* note 88, at 301-02 n.37.

90. *Id.* at 302.

91. This additional cost is referred to as the marginal factor cost (MFC). *Id.* at 303. This amount is more than just the amount paid for the additional unit. If the input were labor, for example, the hirer (monopsonist) could not pay the higher wage only to the additional worker, but would have to pay it to all its workers. Arbitrage would destroy any attempt at wage discrimination by forcing all other employees to quit and then be rehired at the higher wage. *See*

mand curve. The monopsonist now pays P2 and buys Q2 of the good. Due to private profit maximization, the monopsonist employs too few resources at a price higher than what is socially optimal.[92] The shaded area represents the loss of social welfare.[93]

FIGURE 6



For a firm to exert monopsony power, two conditions, in addition to the upward sloping supply curve, must exist in the market:[94] 1) the buyer or group of buyers represent a substantial part of the purchases in the market,[95] and 2) there are some barriers to market entry. The first condition indicates sufficiently few buyers exist such that each buyer is not a price-taker. If a buyer can not affect the price of the good, then the monopsony and competitive outcomes are equal.[96] *See* Figure 6. In the sec-

Roger D. Blair and Jeffrey L. Harrison, *The Measurement of Monopsony Power*, 37 ANTITRUST BULL. 133, 138 n.20 (1992)(hereinafter Blair & Harrison, *Monopsony*).

92. The monopsonist forgoes potential beneficial trades that would occur between Q2 and Q1. Blair & Harrison, *Antitrust*, *supra* note 88, at 303.

93. One may be tempted to assume that because the monopsonist pays lower prices for its inputs, it will pass those savings onto the consumer in the form of lower prices for the finished output. This assumption does not hold because the monopsonist will price where marginal cost equals demand, and marginal cost does not change. *Id.* at 303-04. The Sixth Circuit was guilty of this mistake when it concluded that a movie theater monopsony would result in lower ticket prices for consumers. *See Balmoral Cinema v. Allied Artists Pictures*, 885 F.2d 313, 316 (6th Cir. 1985).

94. Jacobson & Dorman, *supra* note 85, at 10. Nothing stops a monopsonist from exerting power in market that has a downward sloping supply curve. To lower price, the monopsonist merely buys more. This paper does assumes this situation away since the downward sloping supply curve exists only in the short-run in excess capacity cases or in the long-run when significant economies of scale result in a bilateral monopoly. Neither of these cases present real world problems. *Id.* at 10 n.16. This paper examines the airline industry as a bilateral oligopoly, but economies of scale do not exist to an extent that would lead to a downward sloping supply curve.

95. This condition is easily satisfied for only one buyer.

96. Jacobson & Dorman, *supra* note 89, at 10.

ond condition, difficult entry precludes other firms from entering the market to reap monopsony profits; a flood of new entrants eventually brings the market to competitive equilibrium.[97]

Consider Blair and Harrison's example of a textile mill in North Carolina.[98] The mill has only a small portion of the textile market, but retains monopsony power in the local labor market.[99] The mill produces textiles with only the labor and machinery given the following production function:[100]

$$T = T(L,M)$$

where:

T = the amount of textiles produced;
L = the amount of labor employed; and
M = the amount of machinery used.[101]

Since the mill has monopsony power in the labor market, the wage paid (w) relates to the amount of labor employed:

$$= w(L).$$

The firm hires an amount of labor to maximize profits (π):[102]

$$\pi = P * T - w(L)L - p * M$$

where:

P = the price of textiles;
M = the fixed amount of machinery; and
p = the price of machinery.

The firm continues to add labor until adding one more unit does not affect profit.[103] The upward slope of the supply curve demands that the firm pay a higher wage to that worker and to every other worker. The added cost[104] to the firm equals the wage of the new employee (w(L))

97. *Id.* at 10-11.

98. *See* Blair & Harrison, *Antitrust*, *supra* note 88, at 304-06. *See also* Blair & Harrison, *Monopsony*, *supra* note 91, at 136-140.

99. Blair & Harrison, *Antitrust*, *supra* note 88, at 304.

100. Blair & Harrison, *Monopsony*, *supra* note 91, at 137.

101. The firm fixes the number and configuration of machines in the short run. This simplifies the example, but does generalize to the long run. *Id.* at 137. This assumption fits well into the proposition here the airline oligopoly is subject to capacity constrained games.

102. *Id.*

103. $dp/dL = P * dT/Dl - (w(L) + L\ dw(L)/dl) = 0$. The change in output given a one unit change in labor (Dt/Dl) is known as the marginal product of labor (MPL). Multiplying the output price (P) times the MPL gives the value of the marginal product of labor (VMPL). *Id.* at 137-38.

104. This added cost is known as the marginal factor cost of labor (MFCL).

plus the increase in compensation to all the other employees.[105] Therefore, the firm maximizes its profits when the cost of adding one more unit of labor (the MFCL) equals the added revenue that the change will bring (the VMPL).[106]

The value of the marginal factor cost curve, lying above the supply curve, exceeds that of the supply curve for all values. *See* Figure 6.

The monopsonist employs the number of units of labor and pays the wage associated with the supply curve point. The firm employs Q2 and pays w2. The monopsonist's profit maximization is a cost to the social welfare by employing insufficient labor at an insufficient wage.[107]

1. The All-or-None Approach

To induce lower prices, the monopsonist must usually reduce purchases. The monopsonist prefers to purchase the same amount and pay a lower price.[108] To accomplish this, the monopsonist forces its suppliers to the all-or-none supply curve.[109] Whereas the normal supply curve provides the amount that supplied at a fixed price, the all-or-none supply curve provides the maximum amount supplied at a fixed price when the alternative is providing nothing at all.[110]

Given the supply curve shown, *see* Figure 7, consider a group of firms that produces widgets.[111] At equilibrium, the firms produce Q1 and sell the widgets at P1. If the buyers collude and exert their collective monopsony power, they probably buy less and depress the price of widgets. The buyers might also press the suppliers off the traditional supply curve to the all-or-none supply curve.[112] To do this, the buyers threaten not to

---

105. The additional cost of higher wages can be represented as:

Ldw(L)/Dl.

Thus,

MFCL = w(L) + Ldw(L)/Dl.

Since

VMPL = P * Dt/Dl,

the profit maximization equation simplifies to:

VMPL - MFCL = 0.

106. Blair & Harrison, *Monopsony*, *supra* note 91, at 138. By differentiating the VMPL over the range of possible number of units of labor employed (cad166]0nP *Dt/Dl) provides the demand curve.

107. *Id.* at 140.

108. Blair & Harrison, *Antitrust*, *supra* note 88, at 316.

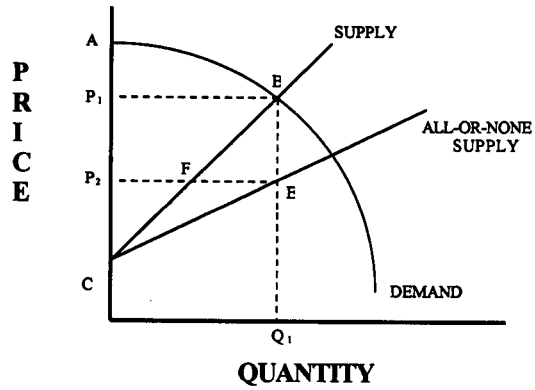
109. *Id.*

110. *Id.* at 316-17.

111. *See Id.* at 317-20, for a discussion of all-or-none supply cases.

112. The all-or-nothing supply curve lies below the supply curve and shows the minimum price that the sellers will accept to provide the given amount of widgets. *Id.* at 317 n.109 (*citing* P. RICHARD G. LAYARD & ALAN A. WALTERS, MICROECONOMIC THEORY 244 (1978)).

FIGURE 7



buy at all unless given their desired price.[113]

The all-or-none scenario affects only the distribution of wealth in the market. Consumers reap the benefits paid for solely by the producers.[114] The airlines find this type of monopsony power the most attractive but very expensive. To successfully force its members to the all-or-none supply curve,[115] airlines must break the unions they face.[116] This type of action helped put Continental Airlines into Chapter 11 reorganization twice.[117]

The industry finds the all-or-none option attractive because it does not lead to short run output decreases. Unlike the traditional model of oligopsony, where input price falls only when there is a decrease in

113. The sellers must perceive as credible the buyers' threat to purchase nothing. If many sellers exist in the market, the threat carries more force since the buyers could easily go elsewhere. The threat loses its impact if only one seller exists or many sellers form an organization. Blair & Harrison, *Antitrust, supra* note 88, at 317 n.112. In the labor market, the airline industry may have a difficult time making credible threats. Many airline workers belong to unions, and those who do not also receive some unionization benefits.

114. The noncollusive consumer surplus is the area APB1, and the producer surplus is CBP1. After imposing all-or-none conditions upon its suppliers, the collusive monopsonists increase their consumer surplus by the rectangular area P1BEP2. This comes at the expense of producers, whose producer surplus has been reduced by the same area. [T]he area above the supply curve and below P2 (*i.e.* area CFP2) is equal to area EFB, and therefore, producer surplus is zero. Blair & Harrison, *Antitrust, supra* note 88, at 318.

115. Recall that threats to purchase nothing have little effect when made to a group of organized sellers.

116. The pilots, machinists, flight attendants and ramp rats all have unions representing them.

117. Frank Lorenzo's successful attempt to break the unions was not the only reason Continental went under two times. Mr. Lorenzo brought a huge amount of debt to the company in his leveraged buyout and liquidated many of its assets to finance the buyout.

monopsonist purchases, the all-or-none scenario allows the airlines to continue the same production level at a lower cost.

The harm from the all-or-none option emerges in the long term.[118] Labor producers leave the market when their wages continually remain below average total costs.[119] The long term results harm the monopsonist through the exit of suppliers; the exodus ceases to serve the monopsonist's interests. As the number of suppliers falls, bargaining power shifts to those who remain.[120] The industry must discount to present value all benefits and costs of this process. Industry costs incurred in the distant future ought to be discounted more heavily than the immediate benefits.[121] Though such analysis exceeds the scope of this discussion, the last hope of survival for the airlines may lie in just such an approach.

IV. CONCLUSION

Following deregulation, the airline industry became increasingly concentrated. Proponents of deregulation did not believe that this would happen as there were no economies of scale in the industry.[122] Without falling costs, however, there is no incentive to grow larger and create a monopoly (or oligopoly).[123] The industry concentrated into a few remaining firms, but has failed to earn oligopoly rents due to the destructive price competition in which it engages. To survive, the industry must use its oligopsony power and drive input prices down.

A joint oligopoly/oligopsony needs to exert power in only one market where it has power.[124] Firms may use their power to either increase price in the output market or decrease price in the input market. Thus, collusion on *either* of the two prices would be sufficient to set the *single* rate of [output] production and [input] purchase. With one price setting the rate of activity, the second price gravitates without collusion to the level required to simply clear the other market. Thus, oligopoly power and oligopsony power are *unified* in setting the single rate of

118. John Maynard Keynes once said, "In the long run we are all dead." The same may be true for the airline industry.

119. Blair & Harrison, *Antitrust, supra* note 88, at 319.

120. *Id.* at 319. Such an outcome could eventually lead to a bilateral monopoly. Bilateral monopolies present a host of additional issues and will not be addressed in this paper. *See generally* Richard Friedman, *Antitrust Analysis and Bilateral Monopoly*, 1986 WISC. L. REV. 873 (1986).

121. Blair & Harrison, *Antitrust, supra* note 88, at 319-20.

122. PAUL S. DEMPSEY & ANDREW R. GOETZ, AIRLINE DEREGULATION AND LAISSEZ-FAIRE MYTHOLOGY 221 (1992).

123. Monopolies and oligopolies require falling costs over a large range of the demand curve before they can successfully exist. SAMUELSON, *supra* note 39, at 484.

124. James L. Hamilton, *Joint Oligopsony-Oligopoly in the U.S. Leaf Tobacco Market, 1924-39*, 9 REV. INDUS. ORG. 25, 28 (1994).

production.[125]

If airlines collude[126] to exert monopsony power in the input markets, especially labor and travel agent commissions, costs are dramatically reduced and prices are brought into line. Such actions would undoubtedly arouse the interest of the either the Justice Department or the Federal Trade Commission antitrust watchdogs.

From the infancy of the industry as a mail carrier, to the years of regulation, to the unfettered market of today, the airlines have undergone many changes. Unfortunately, not all of these changes have brought prosperity to U.S. carriers. Many are near the brink of disaster and desperately need assistance.

While the industry exhibits traits of both oligopoly and monopsony, those factors have not saved it. Only by exerting the market power it wields, especially in the labor and travel agent commission markets, can the U.S. airlines recover from the tailspin in which they currently find themselves. If the industry fails, the U.S. economy and every American citizen will be poorer for it. The industry must determine how best to save itself. Should the industry be permitted to exercise its market power, free of antitrust liability and essentially practicing self-regulation, or shall the specter of federal regulation be revived? Such a dilemma is left to politicians to decide, but neither government regulation nor deregulation have produced the desired results. Maybe it is time to try again, before it is too late.

V. Epilogue

As the editors of this journal prepared this article for publication, the airline industry took a bold first step towards utilizing the oligopsony power it wields over an industry providing an essential factor input: travel agencies. On February 10, 1995, Delta Airlines announced its decision to cap the commission it pays to travel agents at $50 per round ticket and $25 per one-way ticket.[127] By February 13, all the other major U.S. carriers had announced they would follow suit.[128] This commission cap plan could save the industry approximately $400 million.[129]

In following Delta's lead, the other carriers have neutralized the

125. *Id.*

126. Any collusion between competitors raises antitrust issues, due to space limitations this paper does not address them. *See generally* Roger D. Blair and Jeffrey L. Harrison, *Cooperative Buying, Monopsony Power, and Antitrust Policy*, 86 Nw. U. L. Rev. 331 (1992).

127. James S. Hirsch, *Airlines Move to Trim Commissions to Agencies May Boost Ticket Prices*, Wall St. J., Feb. 13, 1995, at B3.

128. Prior to the announcement, the industry wide practice was to pay 10% of the ticket price as commission; that scheme will remain in effect for tickets costing less than $500. *Id.*

129. *Id.*

agents ability to shift bookings away from Delta.[130] The fact that agents do not have such power suggests that the airline industry truly is oligopolistic.[131] Had the market for travel agents' services been competitive, no purchaser of travel agents' services could effect the price the market sets. In a competitive market, the purchasers buy all they can use at the market price, and could not use any more even if they wished to, thereby eliminating any motivation to bid up the price. Likewise, the suppliers sell all they produce, and will not sell anything to a purchaser offering less than market price. Only when perfect competition does not exist can the participants have the power to effect price. When sellers can effect the price at which consumers buy, an oligopoly exists; when buyers can effect the price at which producers sell, an oligopsony exists.

By applying their oligopsony power, the airlines are pushing travel agents into the all-or-nothing supply curve. Unfortunately, one travel agent's "all" price is another agent's "nothing" price. Many smaller agencies have announced they will close their doors under such a commission plan announced by the airline industry.[132]

The existence of the airline oligopsony and the use of such power could very well allow industry accountants to throw away their red pens. In the words of airline consultant James O'Donnell, "[a]ll the other airlines should be sending Delta a very big thank you note."[133] Consumers may not have the same sentiments. Many travel agents, especially those facing extinction, as well as larger firms including American Express Co., plan to let consumers make up the lost commissions by charging use fees, resulting in higher ticket prices.[134] However, this will be a small price to pay for a healthy, and solvent, airline industry, and much less painful than re-regulation.

---

130. *Id.*

131. Were Delta to stand alone on this move, travel agents would likely skip over Delta listings on their CRS screens.

132. James S. Hirsh, *Cuts Hit Travel Agents; Customers May Suffer*, Wall St. J.,Feb. 14, 1995, at B1.

133. Hirsch, *supra* note 127.

134. *Id.*