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Increasing Competition in the U.S. Domestic Airline Industry through International Competition

Pauline S. Seng

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Abstract

The deregulation of the United States airline industry in the late 1970s has resulted in lower ticket prices and increased productivity[1], but deregulation has also created an oligopolistic domestic airline market with high barriers to entry that has obstructed competition. This present lack of competition in the industry has reduced social welfare. I will argue that engaging in cabotage and allowing foreign investments will create a monopolistically competitive environment that will enhance competition and social welfare in the United States airline market.

[1] Kahn, A. (n.d.). Airline Deregulation. *The Concise Encyclopedia of Economics*. Retrieved October 19, 2007, from http://www.econlib.org/library/Enc/AirlineDeregulation.html

I. Introduction

There have been a number of benefits from deregulating the airline industry, but the lack of regulation has led the airlines still in operation after the deregulation era to exhibit cartel behavior and engage in predatory behavior. These practices prohibit successful entry of more efficient domestic carriers and reduces the market's social welfare. These inefficiencies can be improved by allowing foreign investment and foreign competition in the United States domestic airline market.

Cabotage is the carriage of air traffic that originates and terminates in the boundaries of a country by an air carrier of another country.[2] Foreign competition will increase competition in the U.S. airline industry. Cabotage will lead to an exit of inefficient U.S. flag carriers and promote the entry of efficient carriers. This will create a monopolistically competitive market, which will allow consumers to enjoy lower fares and differentiated services. Opening up the U.S. airline industry to international competition is a struggle due to government barriers, barriers created by airlines, infrastructure, and globalization fears. I will argue that international competition and foreign investment will create a monopolistically competitive environment that will improve competition and reduce the market's welfare loss. I will also suggest reforms that will promote international competition in the U.S. airline industry.

The next section will provide a brief history on the deregulation of the United States airline industry that will help in understanding the market that presently exists. In the third section, I will explain the barriers to entry associated with the present day oligopolistic domestic airline market and the ensuing market failure that is hurting social welfare. Section IV will present other methods that U.S. flag carriers have been utilizing in order to prevent competition.

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[2] U.S. Department of Transportation. Office of the General Counsel. Retrieved October 1, 2007, from http://www.dot.gov/ost/ogc/subject/faqs/international/airlineCabotage.html

Section V will give a brief background to industry cabotage, relationships that domestic carriers presently have with international carriers, industry investment policies, and how allowing foreign investment and the entry of international carriers can be used as a solution to dissolve the airline oligopoly and increase competition in the U.S. airline market. A monopolistically competitive model will be utilized to illustrate the benefits from engaging in cabotage. Section VI will discuss the impediments that prevent cabotage from existing in the U.S. airline industry and section VII prescribes solutions for reducing these barriers. Lastly, I will provide concluding remarks.

II. Airline Deregulation History

Before the 1978 United States Airline Deregulation Act, the Civil Aeronautics Board (CAB) was the economic regulatory body for airlines that controlled airline schedules, fares, and routes, which essentially allowed U.S. airlines to exercise monopoly power.[3] In 1975, the CAB's Special Staff did a self-study of the organization and concluded that the amending federal law to eliminate "protective entry, exit, and price control" would be beneficial for the airline market.[4] These inquiries produced by the CAB's staff and independent economists caused Congress to consider the issue. In 1977, the Jimmy Carter administration appointed Alfred Kahn as the chairperson of the CAB. He is well known in the industry as the father of airline deregulation.[5] Kahn was able to assemble a group of talented young economists with strong pro-competitive views that produced research and testified in favor of airline deregulation before Congress.[6] As a result, both sides of the political spectrum agreed that CAB promoted an anti-consumer and anti-

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[3] Preston, E. (2002). The Federal Aviation Administration and its Predecessor Agencies. *U.S. Centennial Flight Commission*. Retrieved October 29, 2007, from http://www.centennialofflight.gov/essay/Government_Role/FAA_History/POL8.htm

[4] Derthick, M. & Quirk, P. (1985). *The Politics of Deregulation*. Washington, D.C.: Brookings Institute., 77

[5] Ibid, 78

[6] Ibid, 78-79

competitive atmosphere in the airline industry, which spurred the call for deregulation within the U.S. domestic airline industry.[7] Economists should be credited for the role they played in the creation of the Airline Deregulation Act. Deregulation was a success and led to lower consumer fares and better quality service according to Kahn. This was due to the fact that the dissolution of the CAB in 1984 temporarily forced carriers to operate in a competitive manner.

Legacy carriers, also known as the Big Six, which had a large presence in the industry before deregulation and survived through the deregulation era through consolidations, include United Airlines, Northwest Airlines, Delta Air Lines, American Airlines, Continental Airlines, and US Airways.[8] These carriers were able to stay in service while many airlines shutdown after deregulation. With more control over their schedules, fares, and destinations, the legacy carriers developed the hub-and-spoke system where the airline would choose a hub, which is a central airport that flights are routed through, and spokes, the routes out the hub.[9] This model essentially allows carriers to fly smaller airplanes to their spokes and larger planes to the hub,[10] which enables airlines to serve routes with lower demand and to have fuller airplane loads. The hub-and-spoke system increases productivity and efficiency and lowers per passenger costs in comparison to the old point-to-point system where airlines directly fly between two destinations. Research proved that the new model increased flight destinations and lowered fares dramatically after deregulation, which was favorable for consumers.[11] Despite this innovation, other deficiencies developed and still presently exist in the U.S. airline market that hurt domestic travelers.

[7] Macchiarola, F. (1988). [Review of the article: The Politics of Airline Deregulation by Anthony E. Brown]. *Political Science Quarterly*, *103* (4), 746-747, Retrieved October 19, 2007, from JSTOR Database., 747
[8] Weber, H. (2004). Will big airlines fly into the sunset?. *USATODAY.com*. Retrieved October 19, 2007, www.usatoday.com
[9] Grossman, D. (2005). Disappearing Hub? It's a myth. *USAToday.com*. Retrieved November 21, 2007, from http://www.usatoday.com/travel/columnist/grossman/2005-03-14-grossman-hub-closures_x.htm
[10] Ibid
[11] Kahn (n.d.)

After the CAB was dissolved, the U.S. Department of Transportation (DOT) became the regulatory authority over the airline industry and the U.S. Department of Justice (DOJ) was given the responsibility to handle antitrust activity within the industry.[12] The U.S. DOJ analyzes mergers and other anti-competitive situations on a case-by-case basis by determining whether the practiced behavior or proposed airline merger substantially decreases competition.[13] Although these agencies are currently put in charge of protecting the consumer from anti-competitive behavior, they have not been effective in preventing carriers from engaging in oligopolistic and predatory behavior.

III. Market Failure

Even though consumers have benefited directly from deregulation, anti-competitive behavior can emerge and hurt social welfare in any unregulated industry. Starting in the late 1980s, the beneficial results from deregulation were unraveled.[14] The Department of Justice conducted studies from 1985 to 1988 that proved airlines in concentrated markets were able to price above their costs.[15] Also in 1985, research done by former airline executives suggested that the deregulated airline industry had developed into a mature oligopoly where price leaders set prices and the rest of the industry followed.[16] Thus, the airline industry and its few standing competitors developed into an oligopolistic market that practices conscious parallelism pricing.[17] Conscious parallelism pricing is an oligopolistic pricing structure where competitors price their

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[12] Preston (2002)

[13] McDonald, J. (2005). "Antitrust for Airlines." Statement to the Regional Airline Association President's Council Meeting. Retrieved October 19, 2007, from http://www.usdoj.gov/atr/public/speeches/217987.htm

[14] Oster, C. & Strong, J. (2001). Predatory Practices in the Airline Industry. *U.S. Department of Transportation*. Retrieved October 1, 2007, from http://ostpxweb.dot.gov/aviation/domestic-competition/predpractices.pdf, 5-6

[15] Ibid

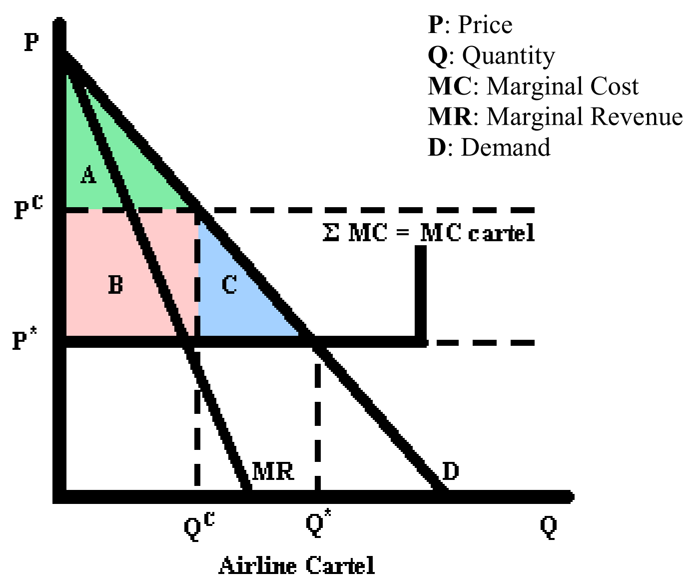
[16] Van Wezel Stone, K. (1990). Labor Relations on the Airlines: The Railway Labor Act in the Era of Deregulation. *Stanford Law Review*. Retrieved December 1, 2007, from JSTOR Database., 1541

[17] Friedman, E. (2001). Airline Antitrust: Getting Past the Oligopoly Problem. *University of Miami Business Law Review*, 121. Retrieved October 1, 2007, from LexisNexis Academic database., 1

products or services similar to others in the industry rather than pricing at marginal cost.[18] In turn, the industry's oligopolistic behavior causes a market failure.

This pricing scheme is a form of tacit collusion where firms in a cartel agree to a certain strategy without an explicit agreement. When producers in a oligopoly notice that the price and output strategy of one firm creates a significant impact on other firms in the industry, they begin to coordinate their behavior and practice conscious parallelism pricing. Thus, with evidence of conscious parallelism, it can be argued that the U.S. airline industry is once again operating as a cartel. Figure 1 illustrates consumer and producer welfare and the deadweight loss suffered from the airline industry engaging in a cartel versus in a perfectly competitive environment.

Figure 1.



In order to simplify, we will assume that the marginal cost of airlines is horizontal. This means that costs are constant because there will be no additional costs to an airline to provide services up to a certain quantity where costs ultimately become infinite due to airplane capacity limitations.

- P^C and Q^C is where the cartel is producing
- P* and Q* is where the firms would produce if in a perfectly competitive environment

Consumer welfare = A
Producer welfare = B
Deadweight loss = C

Operating as a cartel has not been the only attempt by legacy airlines to keep competitors out of the industry.

[18] Ibid

IV. Preventing Competition in the Industry

4.1 Legacy Airlines' Predatory Practices and Advantages

Aside from collusion, evidence suggests that legacy carriers have also engaged in predatory actions in order to drive away competition.[19] George Yip (1982) who specializes in global strategy and marketing noted incumbent firms' reactions to entrants can create strategic entry barriers. An example of this can be found between Northwest Airlines and Reno Air. Reno Air announced in 1993 that it would begin nonstop flights from Reno to Minneapolis and the next day Northwest made the same announcement.[20] Shortly after, Northwest also announced that it would begin services from Reno to Seattle, Los Angeles, and San Diego which were routes also flown by Reno Air. Ironically, Northwest soon began matching Reno Air's fares.[21] Northwest's action is one example of how incumbent airlines deter competition in the market. Incumbent airlines have reacted in a number of predatory ways towards new entrants. Predatory actions include starting nonunion, low cost subsidiary airlines to compete and predatory pricing by temporarily significantly lowering fares to drive away a competitor.[22] Oster and Strong's study for the DOT on predatory behavior in the airline industry discovered that when new entrants left the market due to predatory pressures, the revenue of the predator airline increased significantly within a period of time which made up for the loss from temporarily lowering fares. Despite this research that was sponsored by the U.S. DOT, these airlines are left unpunished for their behavior. As a result, this known predatory behavior that persists in the industry will deter entry into the market. These strategic barriers created by incumbent airlines and other structural barriers make it difficult for startup airlines to enter the market.

[19] Oster & Strong (2001), 6
[20] Ibid, 7-8
[21] Ibid
[22] Ibid, 13; More specific examples can be found in Oster & Strong's study for the DOT

The industry requires high initial fixed costs to start an airline company[23] and in general, airlines operate at a low profit margin.[24] Additionally, incumbent carriers have great advantages over new entrants. They have monopolies over airport gates and slots[25] and huge economies of scale due to their hub and spoke strategies.[26] Legacy carriers also have plenty of market power that they can exercise to their advantage. Many U.S. carriers offer services to reward loyal customers such as frequent flier programs where travelers can earn air miles toward free travel or cabin upgrades.[27] Some airlines engage in frequent flier program alliances that allow travelers to earn miles when traveling with an ally carrier. They also code share flights where a flight operated by an airline is marked as a flight for at least one other airline and passengers on the flight can earn frequent flier miles for each marked airline. This permits airlines to extend their services to cities that they do not serve and earn revenue through offering seats on a partner's flight.[28] While these advantages serve as significant barriers, a few low-cost airlines have successfully entered the market.

4.2 Domestic Competition and Traditional Carriers' Inefficient Industry Practices

Airlines that have been able to compete with legacy carriers, for example Southwest Airlines and JetBlue Airways, use innovative strategies such as serving smaller markets using the

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[23] Barkin, T., Hertzell, S., & Young, S. (1995). Facing low-cost competitors: Lessons from US Airlines. *The McKinsey Quarterly*. Retrieved Septemeber 25, 2007, from http://www.mckinseyquarterly.com/Facing_low-cost_competitors_Lessons_from_US_Airlines_117; Also see the Virgin America example in section 5.4

[24] Ibid

[25] Button, K. (2002). Toward Truly Open Skies. *Regulation: The Cato Review of Business & Government*, 12-16. Retrieved October 12, 2007, from www.cato.org/pubs/regulation/regv25n3/v25n3-5.pdf, 16; Slots are rights allocated to an airline that allows it to land or depart at certain times

[26] Ibid, 16

[27] O'Donnell, C. (n.d.). How Frequent Flyer Programs Work. *Howstuffworks.com*. Retrieved December 1, 2007 from http://communication.howstuffworks.com/ff-programs.htm

[28] Grossman, D. (2006). The anomalies of code sharing. *USAToday.com*. Retrieved December 1, 2007, from http://www.usatoday.com/travel/columnist/grossman/2006-01-23-grossman_x.htm

point-to-point system, which have greatly benefited consumers.[29] Southwest and JetBlue belong to a new trend of airlines known as low-cost carriers. Low-cost carriers have significant advantages over traditional air carriers due to their lower input costs and cheaper product and process design which are then strategically targeted toward a segment of the market.[30] The entries of these carriers are success stories that prove competition gives consumers more flight choices and lower fares, and pressure inefficient carriers to leave the industry or lower their costs.

All legacy carriers, with the exception of American Airlines, have filed for Chapter 11 bankruptcy and are all still presently in operation.[31] These same carriers are operating as a cartel and filing for bankruptcy at the same time is a paradox. This is due to the fact that legacy carriers have very high input costs and the most significant cost that they bear comes from labor.[32] Low-cost carriers have been able to keep costs approximately twenty percent below those of traditional carriers, and they pay their pilots and other employee groups lower wages in comparison to traditional airlines sometimes up to forty percent less.[33] These high cost unionized airlines are a result of the pre-deregulation era.[34] Labor salaries and benefits are the first to be renegotiated with unions when an airline is in financial distress.[35] This would suggest that revenue gained from oligopolistic activities are being shared with airline laborers, which is similar to how carriers operated before deregulation when they were benefiting from an anti-

[29] Gustafsson, L. & Simberg, T. (2005). *Strategic Alliances: Implications for low cost airlines*. Unpublished M.B.A. thesis, Jonoping International School of Business, Sweden.
[30] Barkin, Hertzell, &Young (1995)
[31] Trottman, M. (2006). Airline CEO's Novel Strategy: No Bankruptcy. *The Wall Street Journal Online*. Retrieved November 21, 2007, www.wsj.com
[32] Barkin, Hertzell, &Young (1995)
[33] Ibid
[34] Curtin, W. (1986). Airline deregulations and labor unions. *Monthly Labor Review*. Retrieved November 21, 2007, from http://findarticles.com/p/articles/mi_m1153/is_v109/ai_4260541
[35] Ibid

competitive environment created by the CAB.[36] Although deregulation was beneficial for the industry's consumers, unions and associated high labor costs are a prominent issue that still exists.

Economic inefficiency theories can help explain high labor costs of legacy airlines. The creator of the X-inefficiency theory, Harvey Leibenstein, defines it as when "a given set of inputs do not get to be combined in such a way so as to lead to maximum output."[37] Legacy carriers paying exorbitant wages cause the non-maximization of output. X-inefficiency also usually occurs when there is a lack of competition within an industry, which explains why there was generous labor compensation before industry deregulation. High labor costs are also a form of allocative inefficiency that occurs when the value that consumers place on a good or service is not equal to the costs of resources used to produce the good or service. Additionally, productive inefficiency occurs when the good or service can be produced at lower costs which is exemplified in this situation through low-cost carriers' labor costs. Having high costs causes legacy carriers to operate inefficiently, resulting in constant bankruptcy pressures.

Stemming from bankruptcy, many proposed airline mergers have been submitted to the U.S. DOJ. Since 9/11, there have been several negotiations amongst airlines regarding mergers, which will help these bankrupt firms stay in business. As mentioned before, the DOJ handles mergers on a case-by-case basis by analyzing if the amount of market share gained through a merger would reduce competition.[38] It is inefficient to keep these airlines in business using mergers because I will assert that newly merged conglomerates will keep operating in a cartel because prior business practices will be continued and the gain in market power will allow the

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[36] Ibid

[37] Freedman, C. (2002). The xistence of definitional economics- Stigler's and Leibenstein's war of the words. *Cambridge Journal of Economics*, *26*, 161-178.

[38] McDonald (2005)

airline to continue shutting out competitors. In 2000, travelers would have been twenty billion dollars worse off if Southwest Airlines did not exist at all, and consumers would have been better off if U.S. Airways had left the industry to make room for more efficient carriers.[39] Therefore, there is potential for much more competition within the U.S. airline industry that will be beneficial for consumers and improve social welfare in the current market. The next section will explore how competition in the industry can be improved through engaging in cabotage.

V. Increasing Competition in the Industry

5.1 Background of Cabotage

The Chicago Convention on International Civil Aviation in 1944 brought together fifty-two nations in attempt to negotiate a multilateral agreement on liberalizing the international airline market and air travel.[40] During the convention, the nations drafted up eight "Freedoms of the Skies" but only the first five freedoms were agreed upon by some nations.[41] In 1979, the U.S. heavily pursued "Open Skies" agreements and since then many bilateral agreements have been signed with other countries.[42] "Open Skies" agreements are bilateral or multilateral agreements between countries that negotiate air transportation routes, capacity, pricing, and other aviation activities.[43] Unfortunately, these agreements do not go far enough to increase international competition within the United States domestic airline industry. The final "Freedom of the Sky" associated with cabotage[44] has yet to be negotiated by the United States with any other country. According to J. Bruce McDonald, Deputy Assistant Attorney General of the Antitrust

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[39] Crandell, R. & Winston, C. (2006). Unfriendly Skies. *The Brookings Institution*. Retrieved October 1, 2007, from http://www.brookings.edu/opinions/2006/1218corporations_crandall.aspx

[40] Friedman (2001), 2

[41] Ibid; See Appendix for the Freedoms of the Skies table

[42] Button, K. (1998). Opening U.S. Skies to Global Airline Competition. *Cato Institute's Center for Trade Policy Studies*. Retrieved October 12, 2007, from http://www.cato.org, 1

[43] Open Skies Agreements. (2007). *U.S. Department of State*. Retrieved November 21, 2007, http://www.state.gov/e/eeb/tra/c661.htm

[44] See Table 1 in Appendix

Department of the U.S. Department of Justice, a change to permit cabotage will not happen anytime in the near future.[45] This is discouraging due to the possible benefits that can be gained from partaking in cabotage.

For simplicity, we will focus specifically on the U.S. engaging in unilateral cabotage where foreign airlines are allowed to operate in the U.S. and we will examine the resulting effects that would occur within the U.S. airline market. Engaging in cabotage would mean that, for example, a carrier from the United Kingdom such as British Airways would be able to fly passengers from Washington Dulles International Airport to Chicago's O'Hare International Airport.[46] As U.S. regulations stand now, British Airways would be able to fly from the U.K. to Dulles and then to O'Hare but the airplane would not be allowed to pick up passengers from Dulles. Obviously, if half of the passengers wanted to deplane in Dulles then it would not be economically reasonable to fly a half-empty plane to O'Hare. The airline would be better off making all passengers disembark in Dulles. This example illustrates how there is potential for foreign carriers to serve the U.S. domestic market. Foreign carriers are allowed to pickup and carry passengers within the U.S. only if authorized by the Department of Transportation and only when an emergency or unique circumstance arises.[47] The inability to serve U.S. domestic routes has forced foreign carriers to engage in alliances with U.S. flag carriers.

5.2 Relationships with International Carriers

Alliances have been recently utilized by domestic and foreign airlines in order to operate more efficiently and profitably.[48] The DOT's Office of International Aviation has the responsibility to approve alliances and the ability to grant antitrust immunity to alliances

[45] McDonald, J. (2007). Competition in the Air. Statement to the IATA Legal Symposium 2007. Retrieved October 29, 2007, from www.dot.gov/ost/ogc/subject/faqs/international/airlineCabotage.html
[46] Please refer to Section I for the definition of cabotage
[47] Preston (2002)
[48] Button (1998), 9

involving foreign carriers. Alliances were at first used to help smaller airlines compete with foreign carriers on international routes but now the focus has turned to creating international alliances to compete with one another.[49] These international alliances have impeded competitive behavior that would benefit consumers. When Northwest and KLM were granted antitrust immunity after the U.S. and the Netherlands negotiated an "Open Skies" agreement, the number of flights between the U.S. and the Netherlands decreased,[50] which reduced consumer flight choices. United Airlines and Canada Air's partnership through the Star Alliance[51] also demonstrates diminished competition. Both airlines used to compete on the San Francisco and Toronto route until they began code sharing their flights.[52] Immunity grants allow the airlines to cartelize international routes. If domestic carriers faced competition from international carriers from reciprocal cabotage where cabotage is granted between two nations or unions, carriers would be in direct competition with one another. Absent immunity that fosters a cartel in the industry, airlines would be forced to compete domestically and internationally with all other carriers.[53] Beside alliances, there are many laws that exist to keep air transportation cabotage out of the U.S.

5.3 Domestic Ownership Laws

The United States caps the percentage of foreign ownership in U.S. airlines, which inherently keeps U.S. flag carriers American owned. The current cap is at forty-nine percent of equity and twenty-five percent of voting shares.[54] This essentially prohibits total foreign ownership. Ironically, foreign investments have been an alternative source that has saved legacy

[49] Friedman (2001), 8-9
[50] Ibid
[51] The Star Alliance is one of the world's biggest international airline alliances.
[52] Grossman (2006)
[53] Ibid
[54] Crandell & Winston (2006)

carriers from going into financial distress. In 1989, KLM Royal Dutch Airlines saved Northwest from going into bankruptcy and British Airways acquired forty-four percent of equity holdings of U.S. Airways, which helped with that airline's financial problems in 1993.[55] The restrictions on foreign ownership give struggling and emerging airlines less access to much needed foreign capital.

5.4 Permitting Cabotage in the U.S. Airline Industry

A number of frustrations have stemmed from the prohibition of cabotage and foreign ownership. For instance, Sir Richard Branson, the founder of the popular U.K. Virgin brand, stated, "It is really a ludicrous situation. When I open a Virgin Megastore in New York, I am welcomed with open arms, just as Tower Records is in London. But try to operate an air service between New York and Boston, using U.S. aircraft and U.S. crew, and governments scream that I am mad!"[56] Interestingly enough, Branson has been able to successfully startup the low-cost carrier Virgin America, which has been operating since August 2007.[57] He had to raise funds in the United States in order to account for the fifty-one percent domestic ownership rule. The Virgin Group provided the remaining forty-nine percent, which is approximately $88.4 million.[58] The airline had to go through an eighteen-month investigation by the U.S. DOT because of its ties with Richard Branson.[59] Despite this victorious startup, many interested foreign carriers and entrepreneurs do not have the means and connections to make this a reality because of airline ownership barriers in the United States. Virgin America's success is yet to be determined but Richard Branson's expertise in opening airlines under the Virgin Group and market entry

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[55] Button (1998), 9
[56] Friedman (2001), 6
[57] Crawley, J. (2007). U.S. gives final approval for Virgin America. *Reuters.com*. Retrieved November 21, 2007, from http://www.reuters.com/article/idUSN1830790920070518
[58] Ibid
[59] Ibid

strategy effectively enabled him to enter into the U.S. airline industry. George Yip claims that firms already established in other industries will have an easier time entering a new market because of transferable resources and skills.[60] The Virgin Group serves as a great example of this. Thus, existing firms in foreign countries will have the knowledge and ability to enter the U.S. airline market and serve as capable competitors for U.S. carriers and a reduction in deadweight loss, lower prices, and more consumers choices will occur in the market.

According to Yip's *Barriers to Entry*, a new entrant with existing skills and resources within an industry can reduce barriers to entry, which is extremely important for the entrants of the U.S. airline industry as previous evidence suggests.[61] These types of entrants will have the ability to negate entry barriers and competitively position themselves in the U.S. airline market.[62] The entrant will have better knowledge of profit opportunities than a new startup firm, so more established foreign air carriers would have the ability and means to compete with legacy U.S. flag carriers. Foreign competitors will also have a different and perhaps more effective competitive strategy than incumbent firms like in the Southwest and JetBlue cases.[63] Moreover, allowing foreign competitors to enter the market can promote superior management practices designed to reduce managerial inefficiencies that currently exist.[64] Entry also implies greater product differentiation, which provides consumers with more choices in fares, flight times, and services. The past has shown that consumers have benefited from allowing foreign competition to enter other markets such as in the automobile and steel industry.[65] Allowing cabotage and having fewer restrictions on foreign ownership will lead to increased competition. Competition

[60] Singleton, R. (1986). *Industrial Organization and Antitrust: A Survey of Alternative Perspectives*. Columbus, Ohio: Publishing Horizons, Inc., 22
[61] Yip, G. (1982). *Barriers to Entry: A Corporate-Strategy Perspective*. Lexington, Massachusetts: LexingtonBooks., 26
[62] Ibid
[63] Yip (1982), 28
[64] Button (1998), 10
[65] Crandell & Winston (2006)

from foreign competitors will reduce the oligopolistic market power of U.S. carriers. Pressures from other competitors will cause domestic airlines to start charging at marginal cost rather than continuing to practice conscious parallelism.[66] When international competitors enter the market, it will drive out inefficient carriers leaving only efficient carriers to serve the market. I will suggest that the airline market will turn into a monopolistically competitive market if the U.S. were to allow cabotage.

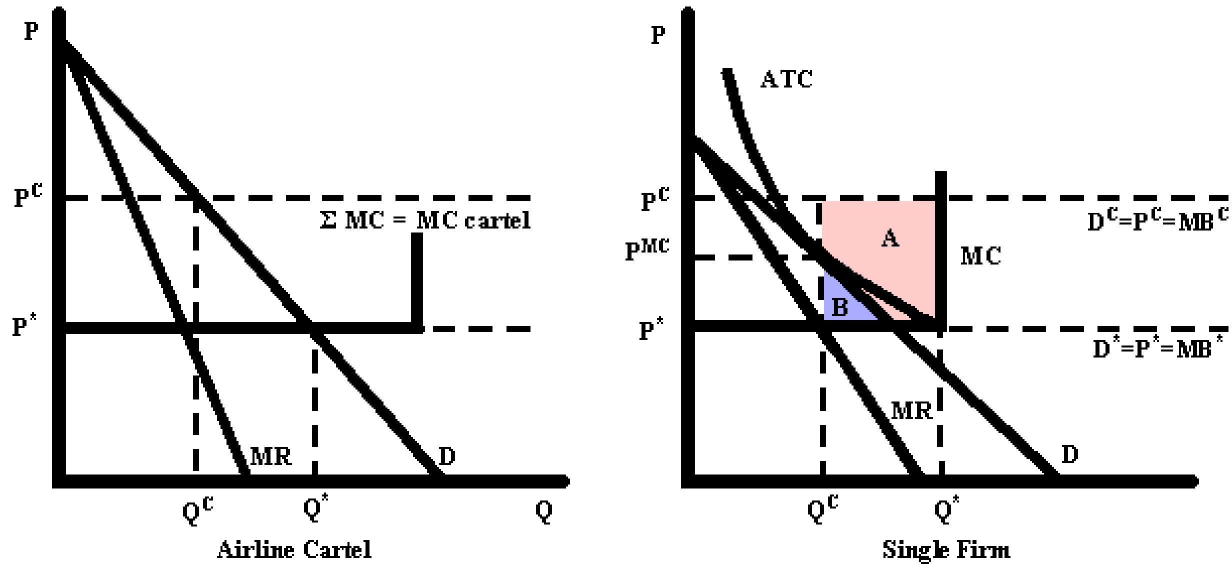
Monopolistically competitive markets can be characterized by free entry and exit, many producers and consumers, and heterogeneous goods and services. This is almost similar to a perfectly competitive market but producers in monopolistic competition try to differentiate their products. We can assume that the products and services offered in an internationally competitive U.S. domestic airline market would be differentiated due to marketing. Although a monopolistically competitive firm with a successful product will be able to operate with an economic profit in the short-run, these profits do not last in the long-run. These economic profits will induce entry into the market and create competition. In the long-run, the overall demand for a firm's product will diminish as competition increases. Due to entry, the firm's demand curve will make a leftward shift until the firm's average cost curve and its demand curve are tangent and there is no economic profit made. This kind of market is considerably different in comparison to a cartel environment because there is free exit and entry and firms must differentiate their goods and services in order to be competitive.

On the following page, Figure Two illustrates the deadweight loss incurred by a single firm operating in a cartel versus in monopolistic competition. In a cartel, a single firm would charge the price P^C and produce at Q^C, which is its production quota and set price given by the cartel. The deadweight loss is captured by the area A+B because the firm would be producing at

[66] Button (1998), 13

P^* and Q* in a perfectly competitive environment. In a monopolistically competitive market, the firm's demand curve has shifted to become tangent to the average total cost curve. The firm's demand and marginal revenue curve shift to become more elastic as entry occurs in the market due to profit incentives. The deadweight loss in this instance is area B because the firm in this scenario should be producing where marginal cost is equal to demand or marginal benefit. The deadweight loss is significantly greater when the firm is operating in a cartel. Additionally, when comparing prices, the price set by the cartel is higher than the monopolistic competition price at P^{MC} and essentially, this increases consumer surplus. Therefore, in a monopolistically competitive market, prices will be lower, consumer surplus will increase, and deadweight loss will decrease. In the long-run sense, a monopolistically competitive domestic airline industry can be considered desirable.

Figure 2.



The same conditions still hold in the airline cartel as in Figure 1.

P: Price
Q: Quantity
MC: Marginal Cost
D: Demand
MR: Marginal Revenue
ATC: Average Total Cost

For simplicity and comparison purposes, we will assume that the production quota given to this firm is Q^C at P^C and the firm's demand curve will shift in this manner in a monopolistically competitive environment. Therefore, the firm's output in a cartel would be the same in monopolistic competition.

When examining the deadweight loss of the single firm operating in a cartel, do not pay particular attention to the shifted demand and marginal revenue curve as this becomes important only when examining deadweight loss in monopolistic competition.

Deadweight loss operating the in cartel = A+B
Deadweight loss in monopolistic competition = B

In attempts to stay profitable, firms in monopolistic competition will try to attract more consumers through product innovation and reduce costs through process innovation. Producers will innovate to the degree that marginal benefit equals the marginal cost of innovating. Product innovation will mean more product differentiation by firms to attract more consumers. This can be established through the use of advertising to try to produce a respected brand identity. For example, Southwest is well known for its cheap fares and lively flight attendants. This can mean that airlines will differentiate by becoming known as the airline with the most on-time flights, most comfortable seats, best customer service, most direct flights, etc. Process innovation through practices such as better management strategies, lowering input costs, and better route strategies will lead to lower costs for the firm. These beneficial results from a monopolistically competitive market can certainly help enhance efficiency in the United States domestic airline industry.

VI. Barriers to Cabotage and Foreign Investments

The first most obvious obstacle for foreign carriers to enter the domestic U.S. market, as mentioned before, is U.S. law. The U.S. government has been accused of hypocrisy where it has been practicing unfair protectionist policies to protect domestic firms while encouraging other countries to engage in open market policies.[67] Another impediment is the ability the U.S. government has to commandeer U.S. commercial airplanes for national emergencies. In exchange, the government has allowed U.S. carriers to be the official carriers for the government which means that the U.S. government will only use U.S. airlines. [68] While national security is an important issue, negotiations can still be made with U.S. flag carriers that would still be in operation under cabotage. Political influence also plays a large role in the continued existence of legacy carriers. Legacy airlines and the Air Transport Association have significant lobbying power in Congress where millions of dollars are spent each year on lobbying to protect their market power.[69] This eliminates incentive for government representatives to change laws that will progressively allow foreign entry and investment in order to protect domestic firms.

The next challenging aspect of the U.S. air transportation industry is airport management and infrastructures. The monopoly that incumbent carriers have over airport takeoff, landing

[67] Button (1998), 8
[68] Preston (2002)
[69] Rowell, D. (2003). Airline Deregulation: Should we allow foreign ownership of US airlines? Retrieved October 19, 2007, from http://www.thetravelinsider.info/2003/0404.htm

slots and terminal space that were grandfathered to legacy airlines after deregulation in 1985[70] has been a major barrier for domestic startup carriers. U.S. airports are generally owned by the public and operated by the local government. Most U.S. airports are publicly owned because there are significant sunk costs in the construction of an airport. If an airport fails, losses cannot be easily recouped. The problems associated with public ownership arise from the influence of incumbent airlines. Existing U.S. carriers have made arrangements to help airports payoff their bonds. They also have voting rights on airport boards, which many have used to their advantage through engaging in activities such as voting in opposition of airport expansion to hinder competition.[71] Airports have little opportunity to attract additional carriers because of relationships already established with incumbent airlines.[72] In addition, increased competition will ultimately result in increased air traffic so it is hard to predict whether the existing infrastructures would be capable of handling the increased traffic that will result from cabotage and foreign investment.

Another prominent barrier to cabotage is security. After 9/11, worldwide safety and security fears from terrorism became an imperative issue that resulted in new security standards for air travel all over the world. While there are legitimate safety and security reasons to be concerned, they can only be resolved if adequate security and safety standards are set in place.

Lastly, globalization has been a growing controversial phenomenon in the twenty-first century that has become a controversial issue. Allowing cabotage and foreign investments will ultimately further promote globalization. Fears of lost jobs, profits going offshore, poor quality

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[70] Friedman (2001), 3
[71] See Crandell & Winston (2006)
[72] Ibid

services, and greater inequality are all negatively associated with globalization.[73] There is the perception that globalization harms the public interest, which is why protectionist policies exist. However, there are positive aspects to globalization as well. In this new technology age, globalization is something that cannot be easily stopped because profit-seeking firms will choose business strategies that leave them in a better position against their competitors.[74] We can already see this happening in the airline industry with customer service calling centers that are outsourced to nations such as India and the Philippines.[75] In this instance, we see that globalization allows firms to lower costs by using more lower cost resources. In order to make air transportation cabotage a reality, there have to be reforms made to breakdown these barriers and a change in protectionist practices employed by the United States.

VII. Recommended Reforms

First of all, there has to be an elimination of the foreign investment cap in order to foster an internationally competitive environment in the United States domestic airline industry. This will allow airlines to have more access to capital and make it easier for foreign entrepreneurs to compete in the U.S. market in contrast to the Virgin Atlantic case. To fully engage in cabotage, the U.S. will have to negotiate "Open Skies" agreements concerning the last "Freedom of the Sky." Eliminating antitrust immunity for international airline alliances will also be necessary. Otherwise, airlines could potentially operate in a worldwide cartel. Additionally, the U.S. DOJ could aggressively punish firms that engage in predatory activities even though predatory activities can sometimes be hard to prove. These actions will reduce the oligopolistic nature of

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[73] Samuelson, R. (2007). Globalization to the Rescue. *Newsweek.com*. Retrieved November 21, 2007, from http://www.newsweek.com/

[74] Clougherty, J. (2001). Globalization and the Autonomy of Domestic Competition Policy: An Empirical Test on the World Airline Industry. *Journal of International Business Studies*, *32* (3). 459-478, Retrieved October 19, 2007, from JSTOR Database.

[75] Weier, M. (2003). Outsourcing Call Centers Pays Off For Delta. *InformationWeek*. Retrieved December 1, 2007, from http://www.informationweek.com/story/showArticle.jhtml?articleID=10700286

the U.S. airline market and promote competition. In order for these actions to occur, Congress must not be swayed by pressure from legacy airlines and fairly consider the issue at stake. I would recommend conducting further economic research on allowing foreign investment and cabotage in the U.S. airline industry and gathering testimonies from notable economists as in the 1970s when Congress was considering deregulating the industry.

Changing the way that airports operate will also be necessary to promote competition. Removing airlines from airport boards and restricting airline investment in airports can be solutions that will cause airports to compete for airline carriers, which will release the monopoly control of gates and slots by incumbent airlines. In order to redistribute slots and gates fairly, an auction can be utilized. Airlines that value the slots and gates the most would be willing to pay the most in the auction. This will eliminate the control that incumbent airlines enjoy. Although airport space is an issue, it is not a severe issue. Only four United States airports are slot-constrained; they are Chicago O'Hare International, Ronald Reagan Washington International, and New York's JFK International and LaGuardia.[76] Increased air traffic that comes with more competition and demand will spur a need for the Federal Aviation Administration to invest in air traffic control systems that are capable of handling the potential traffic. Infrastructure and the air transportation market will ultimately have to adjust to increased demand and competition.

Safety and security concerns are important in commercial travel. All airlines operating within the U.S. will have to abide by U.S. regulations as they do now. To keep standards consistent worldwide, it would be beneficial to implement international safety standards through

[76] Dempsy, P. & Goetz, A. (1992) *Airline Deregulation and Laissez-Faire Methodology*. Westport, Connecticut: Praeger/Greenwood., 315

an organization such as the International Air Transport Association to which almost all airlines belong.[77] Consistent standards would promote a safe air travel environment globally.

The acceptance of globalization and the elimination of protectionism will require a change in perception, which is not easy. The benefits from globalization can be sometimes overlooked due to emphasis put on its negative aspects. There are a number of examples from the past that demonstrate that allowing foreign competition is beneficial. The entrance of Toyota, a Japanese automobile manufacturer, into the U.S.'s automotive industry created more automobile choices for U.S. consumers at lower prices and Toyota's U.S. manufacturing facilities created jobs for Americans.[78] This resulted in an increase in U.S. Gross Domestic Product and even benefited the national economy. As indicated by Richard Branson, negotiations can be made by foreign airline entrants to agree on deals such as employing only U.S. employees and pilots.[79] In the future, firms will continue to feel competitive pressures from globalization. Nonetheless, the benefits from increased competition such as more consumer choices, lower prices, and enhanced social welfare in the market should not be disregarded.

VIII. Conclusion

The oligopolistic airline market that exists and other barriers such as laws, infrastructure, and perceptions will continue to act as barriers for new airline entrants. Even though breaking down these barriers is not a simple and the process would be slow, there must be progressive action taken to implement the suggested reforms in order for this to occur. Further research should be promoted on air transportation cabotage and cost-benefit analyses should be pursued.

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[77] According to IATA.org, the International Air Transport Association is the prime vehicle for inter-airline cooperation in promoting safe, reliable, secure and economical air services - for the benefit of the world's consumers.

[78] Szczesny, J. (2005). Study Calls Toyota's U.S. Impact Large. Retrieved November 26, 2007, from http://www.thecarconnection.com/Industry/Industry_News/Study_Calls_Toyotas_U_S_Impact_Large.S175.A9083.html

[79] Friedman (2001), 6

Recent developments of cabotage such as the agreements made within the European Union and between Singapore and the United Kingdom[80] should also be studied once data is available. Potential lessons should be developed from these studies for applications in other countries. Although cabotage and allowing foreign investment into the U.S. domestic airline market cannot create perfect competition, it will help create a market environment where social welfare is enhanced, there are more flight service choices, and there are lower fares for consumers in contrast to today's high-cost oligopolistic market.

[80] Chwee, Sim K. (2007). UK-Singapore open skies opens new markets. *TTG Asia Online*. Retrieved October 19, 2007, from www.ttgasia.com

Appendix

Table 1.

Freedoms of the Skies[81]	
1st freedom.	The right of an airline of one country to fly over the territory of another country without landing.
2nd freedom.	The right of an airline of one country to land in another country for nontraffic reasons, such as maintenance or refueling, while en route to another country.
3rd freedom.	The right of an airline of one country to carry traffic from its country of registry to another country.
4th freedom.	The right of an airline of one country to carry traffic from another country to its own country of registry.
5th freedom.	The right of an airline of one country to carry traffic between two countries outside of its own country of registry as long as the flight originates or terminates in its own country of registry (i.e., “beyond rights”).
6th freedom.	The right of an airline of one country to carry traffic between two foreign countries via its own country of registry. This freedom combines the third and fourth freedoms.
7th freedom.	The right of an airline to operate stand-alone services, entirely outside of the territory of its home state, to carry traffic between two foreign states.
8th freedom.	The right of an airline to carry traffic between two points within the territory of a foreign state (i.e., “cabotage”).

[81] Button (1998), 5

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