BEFORE THE
U.S. DEPARTMENT OF JUSTICE
ANTITRUST DIVISION
WASHINGTON DC

	)
UNITED STATES OF AMERICA, et al.	)
Plaintiffs	)
v.	)
AMERICAN AIRLINES GROUP	)
Defendant	)
	)

TUNNEY ACT COMMENTS OF RELPROMAX ANTITRUST INC.

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This comment addresses two issues: First, procedurally, the Competitive Impact Statement ("CIS") filed with the proposed Final Judgment is completely deficient in any economic analysis that could support a public interest determination by the Court. It is a "Competitive Impact Statement" in form only, not in substance. It must be rewritten by the DOJ, with greater attention to economic logic, analysis, and detail, and then resubmitted for public comment.

Second, substantively, even a rudimentary economic analysis shows significant economic harm to consumers, even after accounting for the minor divestiture of assets required by the settlement agreement. Hence, the proposed merger (consummated prior to final Court approval) is illegal and not in the public interest. Accordingly, the merger must be undone or otherwise remedied.

This comment presents an economic analysis that, by way of illustration, illuminates what is missing from the CIS. Because the analysis is simpler than the economic analysis that DOJ economists are capable of performing, and almost certainly did perform, the numbers presented here should be regarded as preliminary estimates. The numbers may be less accurate than DOJ estimates – if only the DOJ had provided economic estimates that the public could review.

Analysis of the Merger without Remedies

The DOJ complaint alleges two major harms, and one minor harm, from the merger. The first major harm is a significant increase in concentration for 1,008 city-pair markets specifically listed in the complaint. This increase in concentration is measured by the Herfindahl–Hirschman Index (HHI). In these city-pairs the increase in HHI exceeds 200 and the post-merger HHI exceeds 2,500. For these markets, the DOJ complaint states, "the merger is presumed, as a matter of law, to be anticompetitive." From an economic perspective, even without tacit price coordination, there can be imperfectly competitive outcomes in these markets. As the HHI rises, prices can be expected to increase, thereby harming consumers.

The Cournot model is an economic model commonly used to analyze competition in markets with only a few firms. The Cournot model makes simple, but plausible, assumptions about how firms compete in the absence of any coordination on price. Using the Cournot model, along with other information, one can estimate the impact on prices and consumer surplus of reducing (through merger) the number of firms in the airline industry.

The Cournot model is a two-stage model. In the first stage, firms choose production quantities, while assuming other firms' choices of quantities are given. For the airline industry, quantities would be scheduled passenger flights with specific seating capacity. In the second stage, after quantities are chosen, the airlines then compete on prices (fares) to fill the aircraft seats they have chosen to fly.

Since my main concern in this part of the analysis is to assess likely price increases, and not to explain price differences among airlines or among passengers, I utilize a simple version of the Cournot model that assumes linear demand curves, identical products, and identical marginal costs for all firms. This simplification allows for quicker, more efficient calculations of price impacts from a reduction in competition resulting from merger.

Given that the settlement divests dozens of air carrier slots at two airports near Washington, DC and New York City, I separately computed the average HHI for the 56 listed city pairs that include either city. These 56 city pairs had average post-merger HHI of 4,071 and change in HHI (Δ HHI) of 590. From a sampling of data for the remaining 952 city-pairs listed, I estimated that the remaining city pairs had average post-merger HHI of 4,824 and average Δ HHI of 893. On average, the listed city pairs that included either DC or NYC had lower HHIs, and were presumably more competitive, than the other city pairs listed.

Based on my analysis of the Bureau of Transportation Statistics (BTS) database for domestic flight segments in 2012, I estimate that approximately 29% of passengers in the listed city pairs were flying to or from DC or NYC. The remaining 71% were flying between other cities. The DOJ complaint states, "In these [city pair] markets, US Airways and American annually serve more than 14 million passengers and collect more than $6 billion in fares." In addition, DOJ states, "Other city pairs across the country would likely be affected by the loss of competition stemming from this planned merger." From the Δ HHI averages, I estimated that US Airways and American had approximately 34.8 percent market share in the listed DC-NYC city pairs and approximately 42.8 percent market share in the listed non-DC-NYC city pairs. From these assumptions, I adduced revenues for these city pairs, shown in the Table 1.

Table 1. Estimated 2012 Airline Revenues ($ millions) for 1,008 City Pairs

Type of City Pair	American Airlines and US Airways	Other Carriers	Total
DC or NYC	$1,620	$3,038	$4,658
Not DC or NYC	$4,880	$6,525	$11,405
Total	$6,500	$9,564	$16,064

From Internet research, the price elasticity of demand for passenger airline service appears to be in the range of 0.8 to 2.0. I used the midpoint price elasticity of 1.4 to estimate price increases for these city pairs. These estimates of price increases and losses in consumer surplus are shown in Table 2.

Table 2. Estimated Price Increase and Annual Consumer Harm for 1,008 City Pairs

Type of City Pair	Price Increase	Loss in Consumer Surplus ($ millions)
DC or NYC	3.0%	$136
Not DC or NYC	4.3%	$475
Total	3.9%	$612

The second major harm from the merger alleged in the DOJ complaint is "tacit coordination": "the merger of US Airways and American would make it easier for the remaining airlines to cooperate, rather than compete, on price and service." Such tacit price coordination would cause even further price increases and further losses in consumer surplus, beyond what the Cournot model would predict. The harm from further tacit price coordination is not confined to the 1,008 city pairs listed in the complaint, but could afflict any market where either American or US Airways is present, even if both are not present to a sufficient degree for their merger to raise the HHI by an amount greater than 200. This is because, as stand-alone entities, US Airways had a current incentive and American had a future incentive (via its growth plans for emerging from bankruptcy) to disrupt such tacit price coordination. As a merged entity, the new American has a stronger incentive to cooperate tacitly on prices, and less incentive to disrupt the price coordination. I have insufficient information to estimate the size of this impact, but it could easily be huge, even larger than the $612 million loss in consumer surplus estimated above using the Cournot model.

Finally, the third harm alleged in the DOJ complaint is (relatively speaking) a minor harm – the prospect of a "monopoly" at the Ronald Reagan Washington National Airport ("Reagan National Airport"). The DOJ complaint states, "Today, US Airways provides nonstop service to 71 airports from Reagan National, and it faces no nonstop competitors on 55 of those routes. After this merger, the number of US Airways routes with no nonstop competition would increase to 59, leaving, at best, only 21 routes at the entire airport with more than one nonstop competitor." From this quote, it can be inferred that the merger would have created an additional four routes (59 – 55 = 4) that would have no nonstop competition. On the other hand, the CIS says there are only two such routes: "American and US Airways currently compete head-to-head on two routes from Reagan National (Raleigh-Durham and Nashville) and one route from LaGuardia (Charlotte)."

About half of the $136 million consumer loss in Table 2 from merger impacts on the DC and NYC city pairs can be attributed to DC alone. The Washington, DC city area includes three major airports, so that a "monopoly" at one airport, for most customers, can be avoided by traveling to a different airport. However, some customers are highly time-sensitive and have the money to pay significantly extra for flights to or from a more conveniently located airport. For this subset of customers, mainly "business" travelers, a monopoly at a single airport could lead to significantly higher prices. These consumer losses would be in addition to those already estimated for the city pairs in Table 2.

The three harms alleged in the DOJ complaint can be quantified in dollar terms, as I illustrate in Table 3. In Table 3 I report the estimated harm ($612 million) I calculated above, plus round number figures ($1,000 million and $50 million) for the two harms I was unable to calculate. These additional two harms are not inherently unquantifiable; I simply lacked the time and resources to analyze the relevant data with enough precision. This limitation would not apply to the DOJ economists, who had plenty of time and resources to analyze the data relevant to this case. In the event that even a thorough analysis does not produce sufficiently precise estimates, DOJ could report plausible ranges for dollar values that remain uncertain.

Table 3. Estimated Annual Consumer Harms from Merger without Remedy ($ millions)

Type of Consumer Harm	DC or NYC City Pair	Not DC or NYC City Pair	Total
Increase in Concentration (HHI)	$136	$475	$612
Tacit Price Coordination	$290	$710	$1,000
Monopoly at Reagan National	$50	$0	$50
Total Consumer Harm	$476	$1,185	$1,662

Analysis of the Merger under the Proposed Settlement

The proposed settlement permits the merger, but requires a divestiture of 104 air carrier slots at the Reagan National Airport. This divestiture is apparently intended to address the relatively minor problem of a single-airport monopoly created by the merger. These slots are to be sold by the Defendant, presumably by auction, but only to purchasers approved by the DOJ and plaintiff States. These approved purchasers would presumably be the low-cost carriers (LCCs), not the other two network carriers (Delta and United). If successful, this divestiture would also partially alleviate the two main complaints, increased concentration among city pairs and tacit price coordination among the network air carriers.

In addition, the proposed settlement requires a divestiture of 34 slots at the slot-controlled New York LaGuardia International Airport (''LaGuardia'') and the divestiture of two gates each at airports in Chicago, Los Angeles, Boston, Miami, and Dallas. The DOJ complaint states, "Reagan National is one of only four airports in the country requiring slots for takeoffs and landings." Internet research indicates the other three slot-controlled airports serve the New York City market: LaGuardia, JFK, and Newark, NJ airports. Since these additional divestitures are not in response to any specific complaint, they are presumably intended to partially alleviate the two main complaints, increased concentration among city pairs and tacit price coordination among the network air carriers.

I attach little competitive significance to the divestiture of ten gates at five airports that are not slot controlled or otherwise restricted. These gates could have been purchased or built by the LCCs at any time, both before or after the merger, and without the merger. Although the CIS alleges "difficulties obtaining access to gates and other facilities" at some of these airports, the nature of these difficulties is not explained, nor was any such difficulty alleged in the complaint. At best, auctioning off ten gates at these five airports reduces the "transaction costs" of negotiating purchases of these gates at the five listed airports. Assuming the purchasers of slots and gates at Reagan National and LaGuardia airports wish to fly airplanes to any of these five other cities, they can implement their flight plans a little more quickly. That is all.

The only divestitures of competitive significance are the divestiture of slots, along with associated gates and ground facilities, at the Reagan National and LaGuardia airports. If the DOJ were proposing to transfer these assets to another network carrier, if there were no general problem of competition among network carriers, and if the quantity of transfer were adequate, one could surmise that the competitive problems at these two airports would be "fixed" by this divestiture – or at least not seriously worsened. Instead, DOJ proposed to transfer these assets to LCCs, not network carriers. Furthermore, DOJ failed to explain the relationship between the slot sales and competitive impacts at either airport.

I first discuss the failure to explain. The DOJ complaint states, "US Airways currently holds 55% of the slots at Reagan National and the merger would increase the percentage of slots held by the combined firm to 69%." "Slots are expensive (often valued at over $2 million per slot), difficult to obtain, and only rarely change hands between airlines." "In the market for slots at Reagan National, the merger would result in a highly concentrated market, with a postmerger HHI of 4,959. The merger would also significantly increase concentration by 1,493 points."

By contrast, the CIS provides no similar information about the effect of the proposed remedy on the percentage of slots or its impact on the HHI for slots. DOJ only reports the number of slots being transferred, but not the total number of slots, making it impossible to back this information out. I searched the Internet for hours trying to obtain this information, but with little success. The best I could obtain were news accounts suggesting that the settlement would reduce the percentage of slots at Reagan National from 69 percent to 56 or 57 percent (depending on source). The reported 56 or 57 percent is close to the original 55 percent for US Airways, suggesting that most or all of old American's slots at Reagan National would be divested. I found no information on percents or HHI or total number of slots at LaGuardia. This is information that should have been disclosed in the CIS, along with other information, such as the number of gates, flights, and passengers this transfer of slots was expected to impact.

Because there is no information in the CIS, or easily obtainable otherwise, I am forced to make assumptions for the purpose of further analysis. Reagan National was a hub for US Airways. LaGuardia is not a hub for either US Airways or American Airlines. In 2012 BTS domestic segment data indicate that US Airways flew 1.8 million passengers and American flew 1.1 million passengers from Reagan National. I will assume divestiture of slots transfers 1.1 million of these passengers to LCCs. In 2012 US Airways flew 1.0 million passengers and American flew 1.9 million passengers from LaGuardia. I will assume divestiture of slots transfers 1.0 million of these passengers to LCCs. Hence, in total, divestiture transfers 2.1 departing passengers and an equal number of arriving passengers, for a total of 4.2 million passengers transferred to LCCs. Since the DOJ provided no information, these are only guesses on my part.

I now discuss DOJ's proposal to transfer these assets to LCCs, rather than other network carriers. According to DOJ's complaint, even though LCCs and network carriers both provide scheduled airline service, there are nevertheless significant differences in the product or service which each type of carrier provides. The network carriers utilize a hub-and-spoke system and provide connecting service to more places (including smaller cities) than can be reached by LCCs. The LCCs specialize in direct flights to more popular destinations, such as big cities or tourist attractions. Although there is some overlap, these two types of carrier only partially compete against each other.

Even when there is direct competition from an LCC, the DOJ complaint is skeptical that such competition significantly holds down the prices of network carriers, but the CIS is less skeptical. The CIS states, "Although the LCCs serve fewer destinations than the legacy airlines, they generally offer important competition on the routes that they do serve." The DOJ complaint states:

> 93. The remaining airlines in the United States, including Southwest and JetBlue, have networks and business models that are significantly different from the legacy airlines. In particular, most do not have hub-and-spoke networks. In many relevant markets, these airlines do not offer any service at all, and in other markets, many passengers view them as a less preferred alternative to the legacy carriers. Therefore, competition from Southwest, JetBlue, or other airlines would not be sufficient to prevent the anticompetitive consequences of the merger.

In my analysis of the top 120 cities served by network carriers, approximately 61 percent of the city pairs, weighted by expected passenger traffic, had any significant direct flight competition from an LCC. Accordingly, for the situations where the proposed settlement provides a remedy, I will assume that the added LCC competition affects 61 percent of the city pair markets, and within these markets LCC competition is 80 percent effective in holding down prices. The 80 percent effectiveness assumption may be a bit generous, but it makes no difference for the overall conclusion. Combining the 61 percent and the 80 percent yields a 48.8 percent overall effectiveness in holding down prices. I apply the 48.8 percent reduction to all consumer harms involving the DC or NYC airports. These estimates of the impact of the remedy on consumer surplus are shown in Table 4.

Table 4. Estimated Annual Consumer Harms from Merger With Remedy ($ millions)

Type of Consumer Harm	Baseline (No Merger)	Merger Without Remedy	Impact of Remedy	Merger With Remedy
Increase in Concentration (DC or NYC City Pair)	$0	$136	-$67	$70
Increase in Concentration (not DC or NYC City Pair)	$0	$475	$0	$475
Tacit Price Coordination (DC or NYC City Pair)	$0	$290	-$142	$148
Tacit Price Coordination (not DC or NYC City Pair)	$0	$710	$0	$710
Monopoly at Reagan National Airport (DC)	$0	$50	-$24	$26
Total Consumer Harm	$0	$1,662	-$233	$1,429

As can be seen from Table 4, the DOJ remedy reduces the loss in consumer surplus by about 14 percent, from $1.7 billion per year to only $1.4 billion per year. Unfortunately, the DOJ remedy is inadequate, because 86 percent of the harm from this merger remains. This remaining harm, as estimated above, is $1.4 billion per year. Over the ten-year period of the proposed Final Judgment, the accumulated consumer harm is $14 billion. This merger is not in the public interest. Therefore, it is illegal. Hence, it must either be overturned or remedied in a more adequate manner.

This merger would reduce the number of network carriers from four to three. In the process, there is likely to be reduced capacity, price increases, and more tacit price coordination among the network three. There is no realistic hope that a new network carrier will arise any time soon to replace this lost competition, as even the CIS states:

> The proposed remedy will not create a new independent competitor, nor does it purport to replicate American's capacity expansion plans or create Advantage Fares where they might otherwise be eliminated. Instead, it promises to impede the industry's evolution toward a tighter oligopoly by requiring the divestiture of critical facilities to carriers that will likely use them to fly more people to more places at more competitive fares. In this way, the proposed remedy will deliver benefits to consumers that could not be obtained by enjoining the merger.

Unfortunately, the CIS studiously avoids stating the obvious cause for "the industry's evolution toward a tighter oligopoly." That obvious cause is DOJ's apparent willingness to permit the present merger, which simply hastens "the industry's evolution toward a tighter oligopoly." The DOJ permits the clear harm of reducing by one the number of existing network competitors in the vain hope that the LCCs, which are not network carriers, will somehow replace the lost competition. This replacement competition is inferior to the competition lost by the merger. Arguably, it may be a "benefit," but it is not a net benefit, because the harm outweighs the good.

To establish more clearly why there is no realistic hope that a new network competitor will soon arise, consider the transfer of 4.2 million new passengers to the LCCs, as estimated above. The largest LCC, Southwest Airlines already had 120 million passengers in 2012, more passengers than the largest network carrier. The addition of 4 million more passengers would have little impact on Southwest's business strategy. Of Southwest, the DOJ complaint states, "Southwest, the only major, nonnetwork airline, and other smaller carriers have networks and business models that differ significantly from the legacy airlines." The second largest carrier, JetBlue Airways, had 25 million passengers in 2012. The addition of 4 million passengers would bring it to 29 million passengers, which is still less than the 48 million passengers carried by the smallest network carrier in 2012 (US Airways). Moreover, JetBlue would still need to overcome the same organizational difficulties to become a network carrier that Southwest has not overcome.

Network carriers provide a different product or service than do the LCCs. That is why, on average, their prices tend to be higher, yet the public still pays these prices. Network carriers provide connecting flights to more and smaller places than do LCCs, which instead specialize in direct flights to larger markets. Only a portion of the price difference between LCCs and network carriers can be attributed to market power exercised by the network carriers. The main portion of the price difference is due to the cost of extra services that consumers value and are willing to pay for.

To some extent, comparing the prices of network carriers and LCCs is like comparing the prices of bananas and cherries. At the local grocery store, bananas cost 69¢ a pound, but cherries cost $3.99 a pound. Yet one can argue, bananas and cherries are just fruit, fruit should all cost the same, and fruit should always be sold at a low price. The bureaucratic proposal by the DOJ is that we should take land and labor away from the cherry farms and sell it to the banana farms. The result is that cherries will cost more and bananas will cost less. If the DOJ is lucky, the average price of fruit will go down, but this is not due to competition; it is due to a bureaucratic reallocation of resources. Instead, we want competition to determine the supply and demand for bananas and cherries, even if it means some fruit will be priced higher than other fruit.

Similarly, the DOJ's bureaucratic reallocation of resources from network carriers to LCCs is a distraction from the main competition issue in this case. The problem is that the number of network carriers is being reduced from four to three. This is injurious to competition. Reallocating slots and gates from network carriers to LCCs does not fix this competition problem. Rather, the main impact from this maneuver is to reduce the resources available to network carriers, leading to less network service and higher network prices. Even if the greater resources sold to LCCs causes the average price of airplane flights to go down, this is not the correct measure of success. Instead, justifying this bureaucratic maneuver requires more complex economic analysis, which the CIS does not provide.

Possible Defenses for the Merger

The merger is extremely anti-competitive. The proposed remedy is woefully inadequate. The explanations in the CIS are unconvincing. This always causes some people to wonder, is there some hidden reason for why DOJ approved this merger? If there is such a hidden reason, the DOJ needed to disclose it as part of its Competitive Impact Statement, so that the public could comment on it and the Court could determine whether the hidden reason had merit in the public interest analysis.

One possible hidden reason is that the DOJ believes it has a weak case. Perhaps the DOJ believes the efficiencies defense or the bankruptcy defense is stronger than what it alleged in the complaint. If so, the DOJ needed to say so as part of its CIS, so that the public could comment on whether DOJ's evaluation appeared correct. As it stands, the DOJ in its complaint took strong stances on both potential defenses to the merger. The CIS has not taken back either set of statements.

Regarding efficiencies, DOJ stated, "There are not sufficient acquisition-specific and cognizable efficiencies that would be passed through to U.S. consumers to rebut the presumption that competition and consumers would likely be harmed by this merger." Regarding bankruptcy, DOJ stated, "A revitalized American is fully capable of emerging from bankruptcy proceedings on its own with a competitive cost structure, profitable existing business, and plans for growth." And "American does not need this merger to thrive, let alone survive. Before the announcement of this merger, a key component of American's standalone plan for exiting bankruptcy revolved around substantial expansion, including increases in both domestic and international flights."

Because the CIS does not allege any efficiency defense or bankruptcy defense, I do not analyze any such defense. If the DOJ is relying on such a defense, the DOJ must re-issue its CIS so that the public may comment on its validity.

Another possible reason is politics. DOJ's leadership may have decided that more voters support the merger than oppose it, or that the political support of certain special interest groups needed to be curried. Notably, this merger has resulted in payoffs, in the form of re-allocated slots and gates, to alleged "low-cost" carriers (LCCs). DOJ's leadership may have decided that politics outweighs competition when deciding to settle. Of course, the Court cannot approve any such purely political reason, because the law must be enforced.

Alternatives to the Proposed Settlement

The Tunney Act requires that the CIS include "a description and evaluation of alternatives to such proposal actually considered by the United States." 15 U.S.C. § 16(b)(6). The DOJ must be working from a very narrow interpretation of this requirement, because the only alternative mentioned in the CIS is the alternative of going to trial.

The statutory requirement uses the plural form, "alternatives," which suggests that Congress expects that the U.S. would routinely consider several alternatives, not just one alternative. The US government is not a single person, but consists of many officers and employees. If any of them within DOJ considered any alternatives to the proposed settlement, these needed to be mentioned and evaluated.

For example, before negotiations began or during negotiations were any other remedies considered? Were any variations on the remedies considered? Did anyone outside the government make any suggestions that DOJ's officers or employees considered? Are we to suppose the only remedy ever considered by DOJ is the exact remedy proposed for the Final Judgment? Common sense suggests otherwise. Several alternative remedies were undoubtedly considered.

DOJ did not even try to list the alternatives. Therefore, the CIS is incomplete. This is no small matter, because the "anticipated effects of alternative remedies actually considered" must be considered by the Court as part of the public interest determination. 15 U.S.C. § 16(e)(1)(A).

If the listing and evaluation of alternative remedies is missing, as it is here, the consent judgment cannot be entered.

The one alternative that the DOJ actually admits to considering is not properly evaluated. The CIS states:

> The United States considered, as an alternative to the proposed Final Judgment, a full trial on the merits against the Defendants. The United States could have continued the litigation and sought preliminary and permanent injunctions against the proposed merger. However, the proposed Final Judgment avoids the time, expense, and uncertainty of a full trial on the merits.

The listing of this only "alternative" takes only two sentences and its "evaluation" only one sentence. That one sentence is trite boilerplate. Of course a full trial involves time, expense, and uncertainty. Don't they all? Here are some tougher questions that should have been answered as part of the evaluation: How much time and expense would a trial involve? How much uncertainty? What are the strengths and weaknesses of the case, such that it may (or may not) be desirable to settle? What are the odds of success at trial? If the case has three main complaints, as here, what are the chances of success for each complaint? If the U.S. did go to trial and won the case, what remedy would the U.S. ask for? Is it the same remedy as what the U.S. is getting right now, or would it be a different and stronger remedy? The quote above says only that the U.S. "could have" (not "would have") "sought preliminary and permanent injunctions against the proposed merger."

To analyze whether it is better to settle or go to trial, most economists would use expected utility theory to guide the choice. They would summarize the available beliefs and predictions and put this information into equation form. For example,

If $S > pW + (1\text{-}p)L - T$, then settle the case.

If $S < pW + (1\text{-}p)L - T$, then take the case to full trial.

Where S = value of settlement, p = probability of winning case, W = value of winning case, L = value of losing case, and T = cost of trial. For the consumer harms I estimated above, S = -\$14.3 billion, W=\$0, and L = -\$16.6 billion. If we further assume that W = 0.6 (60 percent) and that T = \$0.1 billion (\$100 million), then the above inequality works out as follows:

$-14.3 < (0.6)(0) + (0.4)(-16.6) - 0.1 = -6.74$, therefore take the case to full trial.

Because of the large amount of consumer harm from this merger, and because the settlement remedy is so inadequate, it would be better to take this case to full trial, even if it cost the government \$100 million and there was only a 60 percent chance of winning. Settling the case on these terms is a bad option, compared to the alternative of going to a full trial on the merits.

One alternative remedy that the DOJ should have considered (whether or not it was actually considered) is the use of my patented invention.[1] This invention was specifically designed to ameliorate or eliminate problems of collusion, tacit price coordination, and other imperfectly competitive outcomes among a small number of oligopoly business firms. The invention works by changing the incentives of business managers, so that instead of trying to maximize the absolute value of their own business profits, managers will try to maximize the profits of their own business firm relative to competing business firms. To put it another way, managers would be paid or incentivized to maximize relative profits rather than absolute profits.

In the airline industry, where the problem is tacit price coordination, occasional episodes of actual or tacit collusion, and other imperfectly competitive outcomes resulting from competition among the few, there are two ways to implement the invention. One way is the "perfect" way. All three or four of the large network carriers can be incentivized to maximize relative profits against each other. This would set up a zero-sum game between the three or four airlines, such that they would never choose to jointly cooperate to raise prices or restrict service. Unless the DOJ or FTC would catch three or four network carriers in the act of actual collusion, there may be no basis (outside of an act of Congress) to implement my invention as part of a settlement agreement (or a trial on the merits) on three or four business firms at once.

The other way to utilize my invention is to implement relative profit incentives on one firm only. This would be an "imperfect" solution, because it would not set up a zero-sum game among the three network carriers. Nevertheless, even when relative profit maximizing incentives are implemented with respect to one firm only, the attempt by this one firm to maximize its own profits relative to its competitors' profits can have substantial disruptive effects on incipient trends towards price coordination and other imperfectly competitive outcomes. It would incentivize the new American Airlines to have growth plans like the old American Airlines and to offer Advantage Fares, or a similar discount program, like the old US Airways.

In the context of this case, implementing relative profit incentives only on American Airlines would mean defining relative profits as American's profits relative to the profits of its two closest competitors, Delta and United. If need be, these relative profit incentives can be strengthened or weakened to fit the exigencies of this case. The incentives can be adjusted to obtain the agreement, if agreement is possible, of both the Plaintiffs and Defendant to allow this merger actually to be in the public interest, as measured by lack of overall harm to consumers.

This case is unusual in that the two merging parties have already consummated their merger without waiting for the Tunney Act process to complete its course and without waiting for the proposed Final Judgment to be entered by the Court. This might not violate the letter of

[1] This invention is described in the paper, "Using Relative Profit Incentives to Prevent Collusion," *Review of Industrial Organization*, Volume 11, Number 4, August 1996, pp. 533-550. The invention is also described in U.S. Patent 7,065,495, *Method and Apparatus for Preventing Oligopoly Collusion*. The author and inventor is also available to answer questions.

the Tunney Act, but it sure seems to violate its spirit. By acting in this hasty manner, Defendant took upon itself the business risk that the merger might be disapproved and subsequently ordered to be undone. This *fait accompli* in no way changes the baseline against which the merger must be compared. This baseline remains the economic value consumers would experience if the Defendant had never merged. Among other requirements, the public interest determination must assess whether the merger improves (or leaves undamaged) the consumer value from competition relative to the no-merger baseline.

If either the DOJ or the Court finds that the proposed Final Judgment does not meet this standard, as I believe it does not, then consent for the merger must be withdrawn or disapproved. In that event, either a new agreement must be reached or the merged firm must be split into two parts. Perhaps the two parts will be similar to the old American and the old US Airways, or perhaps some other split will be deemed more equitable.

Professional Standards for Impact Analysis

The Competitive Impact Statement is deficient because it fails to provide a substantive economic analysis which can properly lead the Court to a public interest determination that the proposed Final Judgment is either in, or not in, the public interest. Without such well-explained economic analysis, along with supporting data and reasoning, it is impossible for either the public or the Court to follow the DOJ's reasoning so as to conclude that the settlement is in (or not in) the public interest.

Among other things, 15 U.S.C. § 16(b) requires the DOJ to publish a "a competitive impact statement which shall recite…

(3) … the anticipated effects on competition of such relief; …

(6) a description and evaluation of alternatives to such proposal actually considered by the United States.

In addition, 15 U.S.C. § 16(e)(1) requires the Court to make a public interest determination, which "shall consider—

(A) the competitive impact of such judgment, … , anticipated effects of alternative remedies actually considered, … , and any other competitive considerations bearing upon the adequacy of such judgment that the court deems necessary to a determination of whether the consent judgment is in the public interest; and

(B) the impact of entry of such judgment upon competition in the relevant market or markets, upon the public generally and individuals alleging specific injury from the violations set forth in the complaint including consideration of the public benefit, if any, to be derived from a determination of the issues at trial.

For the above public interest determination, the Court needs an economic analysis, not simply a strictly verbal document filled with a layman's or lawyer's interpretation of competitive effects. Such a document in many cases, and certainly in this case, needs to be written by professional economists and reviewed by others, including lawyers, to ensure accuracy, understandability, and completeness. It is economists, and only economists, who can properly analyze competitive impacts of a merger and evaluate the various alternative remedies that might be applied to a merger.

The closest analogue to the Competitive Impact Statement and the Tunney Act procedures would be the Regulatory Impact Analysis and the public comment and public hearing procedures that Agencies of the US government undertake when proposing rules or regulations. These Regulatory Impact Analyses are known by various names and are typically written by economists, usually anonymously except for Agency name. The standards of professional analysis in the writing of these documents are set forth in Executive Order 12866, Circular A-4, and other documents.[2]

Because the CIS was apparently written with little or no input from professional economists, it is sorely deficient in its analysis of competitive impacts, which quintessentially require economic analysis. Such an analysis in most cases, and certainly in this case, will require a description of data, methodology, and a storyline capable of being understood by other economists. Highly technical material with complicated equations or other complex economic analysis can be posted on the Internet, with summaries and references in the CIS. Relevant data can be summarized in tables within the CIS and, where appropriate, detailed data posted on the Internet as supplementary material. Conclusions, such as a cost-benefit analysis of the merger and its possible remedies, can also be placed in tables within the CIS. This comment contains a few examples of types of table that might be part of a genuinely substantive CIS.

Because the Competitive Impact Statement is deficient, it should be rewritten and resubmitted for public comment. If the DOJ will not do this voluntarily, the Court may need to order that it be done, so as to establish a precedent that the CIS needs to be of professional quality. Such professional quality work will also assist the public in understanding why the DOJ either does, or does not, approve particular mergers or accept, or not accept, particular remedies.

[2] Among other locations, Executive Order 12866, Regulatory Planning and Review (58 FR 51735; October 4, 1993) can be found here <http://www.reginfo.gov/public/jsp/Utilities/EO_Redirect.jsp>. Among other locations, Circular A-4, Regulatory Analysis, September 17, 2003, can be found here <http://www.whitehouse.gov/omb/circulars_a004_a-4>.