Sam Buttrick
PaineWebber, Inc.

Remarks to the International Aviation Club
September 19, 2000

Good afternoon and thank you. Over the years, it's been brought to my attention that Wall Street and Washington don't always speak the same language. Now communication is an important skill in life and I want to make sure we communicate effectively here today. So I thought I'd begin by sharing some entries from what we call the "Airline Analysts Lexicon" which is designed to assist investors interpret airline executive speak. It goes something like this—
When they say " meal"—they mean "snack". When they say "salted snack" they mean "peanuts".
Revenue efficiency—higher fares; Rational pricing—higher fares; Fuel surcharge (or I guess in United's case—pilot surcharge)—higher fares. Experienced fleet—old planes; near miss—near hit; involuntary separation—we lost your bag. Insufficient market share—less than 100%. Alliance—cartel. Core strength—monopoly. Reno Air—Air Cal. DC Air—United Express. Well, you get the idea…

Now its time for me to get to know you. We're going to engage in just a little bit of audience participation. Don't worry all you have to do is raise your hand. Now I recognize that expressing a definitive opinion may be counterintuitive to some of you—but do what you can. Here's the first question.

How many of you here believe that business fares are too low?

How many of you think that business fares are too high?

How many of you think that massive industry consolidation with three major mergers would result in greater competition and lower fares ?

How many of you think that massive industry consolidation would result in less competition and higher fares?

Now I'm going to subject you to my opinions for a while. Today's topic is—Consolidation in the US Airline Industry—Friend or Foe?

At the risk of seeming patronizing, let's start out with a seemingly simple question—what is competition? I ask this basic question because based on some of the statements that I've seen about airline competition, some quick review of basic economics seems in order. How about —the presence of effective independent competitors in a relevant market. What is more competition? Simple enough—more effective competitors.

Now people think of competition as bringing lower pricing, but just as importantly it also brings better (as in more frequent) service. Better service and lower pricing—hard to beat that. In short, the general case certainly must be that more competitors create more supply, which creates better service at lower prices—and generally lower return on invested capital.

By contrast, the reverse case must be that fewer competitors contract supply, which creates higher unit pricing and inferior service—and, generally higher returns on invested capital—to the extent that labor hasn't fully intercepted the windfall. In theory, access to capital modulates the degree of relative competitiveness as weaker competitors are forced from the market. Of course, in the airline industry you call Seattle and Toulouse and see what's not moving! Now I fully acknowledge that the foregoing statements hardly constitute new terrain in economic theory—but in light of some statements that have been made—for example discussing improbably how fewer competing networks would actually result in more competition—I thought it would be helpful to review some basics.

Competition and Airlines

Now let's talk about competition and airlines or what I like to call "Shut up, you're going to Detroit." The old adage about averages suggests that with one hand in freezing water and the other in scalding water, on average a person is comfortable—in reality, this individual is simultaneously experiencing frostbite and third degree burns. It is in this sense that the airline industry on average is competitive.

At one extreme, we have local nonstop monopolies from hubs. Most non-hub spokes from monopoly (aka fortress) hubs like Cincinnati, Pittsburgh, and Charlotte are monopolies (as discussed later, this is why most airline merger candidates can accurately, but not wholly relevantly, cite limited nonstop route overlap). In these markets, nonstop competition is nonexistent and, irrespective of market "contestability"—i.e., the potential for market entry—the economic advisability of entry is dubious. Put differently, the good people of Charlotte (80% controlled by US Airways) could build a terminal for Southwest Airlines—but unless there were no other alternatives, it would remain empty. If you build it—they won't come

Hubs by design result in excess service in the local market (as seats are needed to accommodate connecting flow) and, as such, serve as an effective economic barrier to entry. A certain level of local monopoly is an inevitable trade-off in a hub and spoke structure.

At the other extreme, we have highly competitive markets, almost exclusively characterized by the significant presence of discount service (most often Southwest Airlines). In these markets average fares are low (about 45-50% lower than non-discount markets) and frequencies are higher (on average nonstop capacity rises 60% after discount entry). More flights, lower fares—not a bad deal! In effect, the U.S. airline industry is significantly competitive because Southwest Airlines exists. When people cite average real fare declines since the 1978 advent of deregulation to illustrate the success of that act, they are really simply commending Southwest Airlines. The success of deregulation and Southwest Airlines are, in effect, synonymous.

In between local nonstop hub monopolies on the one hand and markets with significant discount service on the other, there are thousands of smaller markets (city-pairs) with no nonstop service, where service consists of connecting service over one or, typically, multiple hubs. In these connecting markets, the most proximate hub with jet service typically has a natural share advantage.

In short, the appearance of national competition (no carrier with a national share greater than 20%) masks significant (and more competitively relevant) market share concentration at the local level.

How Airlines Compete—Now let's talk about how airlines compete

Airlines compete in cities, not on routes. This seemingly innocent distinction is, ultimately, critical. While individual routes form the arsenal of a city strategy, the objective is to create sufficient dominance in a city such that revenue share becomes disproportionate (as in greater) relative to service share. Airlines have generally found that dominance and return on capital are nicely correlated—as such, the airline profit motive is to dominate as many large cities as possible. As discussed more fully below, the proposed United-US Airlines merger is significantly driven by city presence factors.

Let's talk about network competition-

Over the past decade, there has been significant hub rationalization in the US market. As hubbing efforts to varying degrees by Northwest (DCA, MKE), American (RDU, Nashville), United (Orlando), US Airways (SYR) and Continental (DEN, GSO) came and went. This hub rationalization via natural selection (i.e., poor returns) has largely run its course—the proposed United/US Airways merger represents an effort to jumpstart a process that has slowed in the natural world. “If you won’t do it, we’ll do it for you!”.

Some have improbably suggested that three mega networks will provide more competition than the six partial networks that preceded them or, if not more—then sufficient—sufficiency of course being in the eyes of the beholder. In this regard, superficial analogies have been drawn to industries with fewer domestic competitors such as automotive manufacturing (as in the Big Three) or commercial aerospace (Boeing and Airbus). Every industry has its own idiosyncrasies but let’s look for example at the Big Three automakers. Two obvious and material distinctions between autos and airlines strike us immediately:

1. **Foreign competition**: Foreign automakers can both import and manufacture directly in the U.S. market. Capital flows more or less freely across national borders. By contrast, in the airline industry, foreign investment is limited by law (at varying non-control levels), and cabotage (domestic flying by a foreign carrier) is illegal
2. **Uniform local market shares**: In the auto industry, the distribution of market share is comparatively uniform at the local level. If the auto industry were an airline, Ford would have an 80% share of Charlotte, and GM would have an 80% share of Minneapolis.

Indeed, both of these distinctions also suggest intriguing (but perhaps impractical) partial remedies to mitigate the anti-competitive tendencies of mergers—i.e. relaxation of foreign ownership limits and concomitant permission of cabotage. Of course, both management and labor generally oppose cabotage—thus illustrating on key rule in life—i.e. if management and labor agree on something then its generally worth looking into!

Consolidation—Be Careful What You Wish For

The conventional wisdom is that broad industry consolidation—say, six major networks down to three (plus Southwest); let’s forget about the little guys for now—will enhance return on capital (i.e., good for shareholders) by rationalizing capacity (i.e., fewer seats) in a more efficient manner (competing hubs shrink). Putting aside for the moment that there is very little in this for the average consumer, this conventional wisdom is an effective starting point.

Now let's introduce the so-called law of unintended consequences. In looking at a post-consolidation world — The first question becomes: How are the spoils of consolidation divvied up between labor and shareholders? . Horizontal mergers are done for two essential reasons—revenue synergies (2+2>4) and/or expense efficiencies (2+2<4)—with the present value of these synergies presumed to be in excess of the premium paid for the target equity (assuming for the moment that that security was fairly valued at the outset). It is generally believed that there are no major unit cost efficiencies resulting from major airline mergers—after all, if you haven't hit your stride in terms of economies of scale with 600 aircraft, another 400 aren't going to make a difference.

Even United and US Airways acknowledge that there are no net present value savings in their proposed merger. We would ask, are there diseconomies of scale? In this regard, we are indeed concerned that industry mergers will result in higher total labor costs as managements buy labor peace as we've seen markedly in the case of the recent UA pilot contract. We consider it likely that the merger will essentially result in a payday for labor that will increase labor costs across the board for United and ultimately everybody else. In short, it seems more likely to us that total industry unit costs will rise as the fruits of consolidation are shared by labor. Meanwhile, many of the presumed revenue synergies are highly subject to competitive response as competing networks seek restoration of network equilibrium (i.e., get bigger also)—the revenue synergies that are left are the ones that regulators are supposed to deal with.

In effect, one possible net result of consolidation is that costs will be higher than expected, and revenue synergies will be mitigated by competitive response—leaving an unknown level of net benefit to shareholders. In short, the revenue benefits of consolidation are highly subject to competitive response, and the higher costs are here to stay. Be careful what you wish for…

United/US Air—Up Close and Personal

Now let's take a closer look at UA/US Airways. But first, its' audience participation time again—what airline is largest revenue carrier to and from the Northeast (as defined by Boston through Washington) to all points; a) United; b) American; c) US Airways; d) Delta. The correct answer is a) United. Far from being weak in the

Northeast, United is actually the largest carrier in mainline revenue terms in the Northeast – to all points. (American is #2, US Airways #3). While one could debate the relevancy of this measure – it does illustrate the simple point that United is far from weak in the Northeast

From United's perspective, US Airways is a "regional" acquisition that plugs a North-South East Coast network, with significant presence in key East Coast cities from Boston on down through Washington, into UAL's significant East-West domestic presence and expansive global network (including the Star Alliance). This is not an untrue characterization—nor does it tell the full story. UAL correctly notes the limited nonstop route overlap between UA/US. Indeed, the two carriers were nonstop competitors on only 13 routes in 1999 (even lower now that US has conveniently scaled back its Dulles operation, where UA has a hub).

Of course, as noted earlier, in a world where most flights begin or terminate at a hub, carriers only have nonstop competition on routes between their hubs—this, of course, being part of the problem. For that matter, UA and Delta don't compete on many nonstop routes, as those two carriers noted in defense of their earlier marketing partnership (which itself emanated from Northwest's acquisition of a control stake in Continental). If Delta ditched it's Dallas operation and American ditched it's Chicago operation, then by the criteria of non-stop route overlap a three way merger between AMR/DAL/and UAL would be dandy. So nonstop overlap, while wholly relevant, only scratches the surface in describing the totality of airline network competition. It is absolutely vital that any party trying to assess the competitive implications of any airline merger—go beyond a simplistic non-stop route overlap analysis and assess city presence, proximate hubs, real estate constraints to name a few.
At the other extreme (and this admittedly overstates competitive overlap), we found that United recorded revenue in over 40% of US Airways 3,300 or so markets that US Airways mainline flew in 1999. To be sure, the UA share was inconsequential in many of these markets—but it gets you thinking in network terms. US Airways is United's largest competitor in Dulles. Last year US Airways mounted a seemingly unsuccessful effort to challenge UAL's Dulles operation with mainline, MetroJet (discount stuff) and Express. In the aggregate at its peak, the US Airways system increased it flights by 233%, to 150 daily departures. Suddenly, Dulles moved up the development priority at United, which, after letting the market lay fallow for years, increased mainline flights by some 60%, to 118 from 73. To look at one market ex-

treme, the LaGuardia-Dulles market saw frequencies rise from 16 to 34. (Recall what we said earlier about more competition producing better service.) US Airways has in recent months significantly retreated from its Dulles expansion) and now this thorn in United's side at Dulles goes away. Cool. Of course, even with the DC Air carve-out, the combined UA/US is still the largest revenue carrier at each of the three greater Washington area airports (BWI, DCA, and IAD), with an aggregate revenue share around 40%.

UAL's Dulles hub and US's Philadelphia hub compete (particularly at the commuter level) for connecting traffic flows. As one would expect from proximate hubs, IAD/PHL have a high degree of overlap in secondary feed markets for both domestic mainline flows and as international gateways. Indeed, PHL is the closest hub to the north of Dulles, and US's Charlotte hub is the closest one to the south of Dulles. Proximate hubs have more competitive overlap than distant ones. Additionally, Pittsburgh (US) and O'Hare (UA) compete to at least a moderate degree for connecting flows. For that matter, the portrayal of US Airways as a North-South East Coast airline is a tad naïve.

In fact, US Airways generates over $1 billion in East-West service—enough to be considered a major airline in its own right. A recent US Airways frequent flyer newsletter touted the addition of an abundance (some 36 or so daily) of East-West flights from its hubs this summer as US Airways seeks in fact to grow into a longer-haul East-West carrier. In this context, many of the new markets that United is touting from current US hubs in an effort to win local support for the deal sound remarkably like the next stage of US's internal growth plan. Surely, UA deserves little credit for adding routes that US would be adding anyway within the next couple of years.

In sum, there is much more to the competitive overlap between UA/US than meets the eye. Considering all of these factors, we can only view the transaction as moderately anti-competitive with respect to current network overlap. However, this does not make the transaction egregiously anti-competitive—it is when taken in combination with other potential deals that the total effect on consumer welfare is less than salutary. In our view, for consumers, a combined United/US Airways means slightly fewer overall flights, reduced service to Baltimore, reduced service to Dulles, a possible contraction of discount operator MetroJet, offset by increased long-haul flying, increased international service (both of which an independent US Airways may have advanced), and full access to the Star Alliance—all the while earning United miles. And it is unlikely that a consolidated United/US Airways will grow as fast as two independent operators—after all, otherwise, why do the deal?

DC Air—Capitol Idea?

Let me make a brief comment on DC Air—the proposed acquirer of significant DCA-based US Airways assets. At the outset, DC Air will have (some) aircraft operated by United crews and handled by United/US Airways ground stations, will offer UA frequent flyer miles, and won't significantly fly into markets served by United—or, for that matter, several places that people really like to go to from Washington, like New York and Boston. Indeed, this sounds more like United Express (without the code-share) than a competitor. To be sure many of these initial operating strucutures are transitional and DC Air may evolve into a meaningful UA competitor over time—but it's simply not starting out that way. Furthermore, at the outset, DC Air will be operating smaller equipment from DCA than US Airways does today.

We estimate that as a result of the merger, total seats offered daily by the combined United/US Airways/DC Air would decline by 15% with daily operations down 8%. In DCAir markets alone, DCAir's daily seats will decline 25% from current US Airways levels. Hard to chalk this up as a win for consumers—though it should help DC Air's bottom line. Who knows: a couple of good years and they may be back to the levels US Airways operates today!

DOJ—Getting Wise?

The Department of Justice is obviously not a patsy for airline transactions—but nor are we at all convinced that the department has the highly sophisticated network analysis that will enable the department to assess network combinations the same way the airlines do internally in assessing the competitive redistribution of revenue (from both other networks and consumers). Of course, most pertinently, the DOJ has challenged Northwest's ownership of a control stake in Continental—two carriers that collectively are roughly the size of United. The department concluded that the acquisition " would lead to higher ticket prices and worse service for millions of passengers"— come to think of it you can do that without mergers. It is difficult for many to reconcile the ongoing DOJ challenge of the Northwest-Continental structure—a smaller network with no more direct overlap—with outright approval of the United-US Airways deal—while keeping a straight face. However, we would also note that transaction never moved to the divestiture negotiations that an outright acquisition might have entailed. The high probability of material competitive response significantly complicates matters as approval of three mega-mergers without astounding remedies would, in our opinion, amount to a pretty inconceivable abrogation of professional responsibilities.

Under traditional Herfindahl-Hirschman (market concentration) analysis, we find what appear to be inconsequential differences between United/US Airways, American/Northwest, and Delta/Continental mergers—as individual transactions, they are each at least moderately anti-competitive. (In one analysis we did, looking only at revenue data for the top 25 cities, we found that AA/NW was the least anti-competitive, while DL/CO was slightly more anti-competitive than UA/US [including the known DC Air carve-out but with no carve-outs for the other deals]). In the case of UA/US, we found that highly concentrated markets would account for an estimated 51% of industry domestic mainline revenue (up from 42% today).

In the event that three mega-transactions transpired, as much as 68% of industry domestic revenue would be in highly concentrated markets. Analyzed at the individual city-pair level, we found that a UA/US merger would create a significant decrease in competition (HH score increases by more than 100 points) in about 472 markets—of which 106 are non-stop markets. These 472 city-pairs accounted for about $6.2 billion in industry revenue in 1999. We would expect similar outcomes from detailed analysis of AA/NW and DL/CO city pairs. In this context, we view any statement in support of one deal versus another as amounting to a claim that "our anti-competitive deal is less anti-competitive than yours". Against this backdrop, it is difficult to see how the DOJ, already concerned about the uneven level of competition in the US Airline industry, can close the proverbial barn door after allowing only one deal out. So saying yes to UAL/US without very material carveouts amounts to saying yes to broad industry consolidation.

What does the competition do?

The airline business is a competitive network business wherein equilibrium is always a relative concept. Network balance can be assessed by overall size, connectivity, and key city presence. In the network business, bigger is better. United/US Air is a big deal. It appears that in the early years, UA is expecting perhaps over $1 billion in revenue synergies from the US Airways merger. Per United's logical template, these revenues come in three areas: 1) enhanced connectivity (more true online display); 2) city presence (bigger is better); and 3) network optimization (canceling bad routes, improving asset utilization, eliminating competitive overlap). The first two factors (which account for perhaps 80% of the total revenue benefi)t—insofar as they entail picking the pockets of competing networks) are highly subject to competitive degradation. It seems fair to say that much of the revenue synergy will be competed away over time—to the extent that competitive response is permitted.

If United is in the ballpark on its numbers perhaps half of the $1+ billion early-year revenue synergy comes out of American's and Delta's pockets. By doing nothing, American and Delta are already in the hole to the tune of $250+million each. American and Delta are not in the business of writing large checks to United—and therefore, from a competitive perspective they must and will respond.

Scenarios—Musical Chairs

So what are the logical scenarios?

In the game of musical chairs, the objective is to have a chair when the music stops. Participants left standing are out. So too goes the game of airline consolidation: Odd bedfellows are made out of competitive necessity, and nobody wants to be left out. The probability of significant competitive response is exceptionally high (though not limited to outright acquisitions). Among many possibilities, here is our leading scenario —

Scenario 1: All carved up and no place to go

From our vantage point, the DOJ might want to find a way to say yes to one big deal—in precisely such a way that they won't have to say yes to three. And if nothing happens, that's okay too. Since one big deal—unmodified—will create others, therefore, DOJ reasonably could be expected to push very hard for material additional divestitures from UAL to create an outcome where AMR and DAL don't feel compelled to respond with a similar sized merger. Carveouts could include an AMR acquisition of all DCA assets (including shuttle)—presumably at a price well in excess of the current proposal; Delta could assume material Philadelphia leaseholds from US

Air. Carve-outs would need to extend to existing UA assets (perhaps Chicago O'Hare slots/gates to AA, Boston gates to DL, LGA gates/slots to someone). The list could go on and on, but in total, assets equivalent to at perhaps one-third of U is carved out (of both UA and US) to AA and DL and/or others with a distinct focus on the cities of the Northeast. This could be sufficient to avoid the most undesirable outcome of multiple mega-mergers—though it would probably entail some level of mopping up of the smaller network carriers (AWA, TWA, ALK) which wouldn't present the same regulatory issues. Now of course, each divestiture compromises United's economics and at some point, UA will conclude that—this really is a pro-competitive deal—not what they meant when they said pro-competitive —and they will likely try and recut the deal (i.e. lower the cost) and US Airways will understandably balk. So the outcome we believe hinges upon how hard the DOJ pushes for additional divestitures and how far United is willing to bend, and how much U is willing to renegotiate. And it's probably going to get messy.

Conclusions

The United/US Airways deal appears moderately anti-competitive—as would be reactive bids by AMR for NWAC and DAL for CAL—or for that matter—most combinations of the six largest networks. But it is the cumulative impact of three mega-mergers that is most untenable from a regulatory perspective, in our opinion, with close to 70% of domestic revenue ending up in highly concentrated markets. Consolidation will harm consumers, raise labor costs, with an indeterminate benefit to shareholders.

Outside of the interested parties, we have yet to meet a senior airline executive who honestly believes that consolidation will be broadly beneficial to consumers with remarks more likely to focus on the relative ease of getting fare increases through or the related benefits of less industry capacity. At the same time, there is an underlying network rationale behind the United-US Airways merger and it may prove more productive to try with significant additional carveouts to refashion the current proposal into one that mitigates the risk of severe competitive response. In the final analysis, this would appear to be a very difficult balance to strike.

Thank you very much for your patience and with my apologies to those who didn't hear what they wanted to hear. Now, how about some questions ?