Evaluation of the Latest Star Alliance Applications for Antitrust Immunity

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August 16, 2006

1. Introduction

In the latest Star Alliance antitrust-immunity applications, the alliance partners request immunized relationships within a larger group of trans-Atlantic Star carriers, with the added carriers being Air Canada, LOT, TAP, and Swiss. This broader group immunity entails two components involving United Airlines (UA). The first component is new pairwise immunities between United (UA) and each of three smaller European carriers. The second component is "global" antitrust immunity for UA and Air Canada (AC), an arrangement that would extend their current trans-border immunity to include worldwide service. Since the first component involves end-to-end integration of United's network with the smaller networks of LOT, TAP, and Swiss, it creates no adverse effects that would offset the usual gains from antitrust immunity. Global UA-AC immunity at first appears to raise new issues given that AC, though foreign, is a North American carrier. However, further consideration shows that the issues involved in global UA-AC immunity are the same as in most previous alliance cases, and that the overall verdict is favorable. Thus, both components of the Star Alliance immunity applications are in the public interest, justifying approval by the USDOT. The analysis supporting this view is presented in the remainder of this report.

2. Immunity for UA and LOT, TAP and Swiss

As explained in the Joint Application, LOT, TAP and Swiss are smaller European carriers that operate mostly regional networks while providing limited trans-Atlantic service to North America. As a result, no nonstop overlaps exist with UA service, implying that there is no potential loss of competition from the proposed immunized relationships. With no downside, immunity then generates pure benefits, which are now well understood and include greater passenger convenience from seamless service as well as lower interline fares.

The fare benefits from immunity, which result from elimination of double marginalization, have been computed many times in my prior work (for a representative nontechnical study, see Brueckner (2003b)). This same methodology could be used to compute fare benefits for the pairwise immunities between UA and LOT, TAP, and Swiss. A complication, however, is that time pressure in the preparation of this report made it impossible to acquire the most recent DOT fare data. Instead, data from the second quarter of 2004, which are the latest data in my possession, are used instead. While these data show appreciable UA-LOT interline traffic, allowing computation of immunity benefits for UA-LOT passengers, the data show little UA-TAP or UA-Swiss interline traffic. In the Swiss case, interlining in 2004 occurred instead with American Airlines, Swiss's immunized alliance partner, which UA will replace under the proposed arrangement. In the TAP case, interlining presumably grew after the carrier joined the Star Alliance in the Spring of 2005, a period not captured in the data.[1]

Despite these obstacles, the benefits of lower interline fares from an immunized UA-LOT partnership can be computed, using previous methodology. Given that the three European

carriers are similar in size, the UA-LOT benefits will then reveal the magnitude of the gains that would be generated by UA-TAP and UA-Swiss immunities. The first step in the calculation is to use the DOT's Passenger Origin-Destination Survey to estimate the number of UA-LOT interline passengers for 2004. The sampled number of passengers equals 378, representing travel in 148 city-pair markets. Since this number comes from a 10% sample over a single quarter, it must be multiplied by 40 (by 10 and then again by 4) to estimate annual passengers, yielding a total of 15,120. Note that this number includes both U.S.- and Europe-originating interline traffic using UA and LOT.

The average interline fare paid by UA-LOT interline passengers was equal to $963. Elimination of double marginalization following immunity will lead to a lower fare number, and the results of Brueckner (2003a,b) can be used to identify the appropriate percentage reduction. Since UA and LOT in 2004 were already alliance partners who engaged in codesharing, the fare reductions associated with these forms of collaboration were already reflected in the $963 fare.[2] But my earlier findings show that the additional collaboration allowed by antitrust immunity leads to a further 16% reduction in the fare. Immunity would then reduce the UA-LOT interline fare from $963 to $809, for a saving of $154 per passenger. In total, existing passengers would then save an amount equal to $2.3 million per year (15,120 times $154) if UA and LOT gained antitrust immunity.

Since UA-LOT interline traffic would rise somewhat in response to the lower average fare, this value understates the full passenger benefits from the fare decline. Assuming a price elasticity of demand equal to -1.5, UA-LOT interline traffic would rise from 15,120 to 18,850

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[1] In 2004, TAP had a codeshare relationship with Continental.
[2] UA's code did not actually appear on LOT flights until midway through the year, so that the collaboration benefits from codesharing were not fully realized until the second half of 2004.

passengers when the interline fare falls, generating $0.3 million in additional benefits. The full "consumer surplus" gain from immunity would then equal the sum of $0.3 and $2.3 million, or $2.6 million. Assuming that the UA-TAP and UA-Swiss benefit figures, if they could be computed, would be of similar magnitudes, the overall benefit from the three immunized relationships would somewhat less than $10 million annually.

3. UA-AC Global Immunity

UA and AC currently enjoy antitrust immunity for trans-border service between the United States and Canada, subject to two carve-outs in nonstop overlap markets. This immunity allows the carriers to collaborate on pricing, most importantly for interline trips in non-hub US-Canada city-pair markets where neither carrier provides online service.

One effect of global immunity would be to allow similar collaboration in city-pair markets involving an endpoint outside the U.S. and Canada served by AC but not by UA. Such a city pair is shown as *WQ* in Figure 1. The interline passenger would first travel on UA from the U.S. city *W* to the AC hub *S* (this would be a nonstop trip if *W* is a UA hub or a connecting trip through a UA hub otherwise). The passenger would then continue on to the destination *Q* using AC. Note that UA routes in the Figure are solid lines while AC routes are dotted lines.

Global immunity would reduce the interline fare for this trip in familiar fashion, and the resulting benefits can be computed using the 2004 data. There were 13 city-pair markets like *WQ* where UA-AC interline service was observed but where the data showed no UA online service. These markets are fairly large on average, with 1273 passengers sampled across the 13 markets, implying a 2004 total of 50,920 passengers (after multiplying by 40).[3] With the markets showing an average interline fare of $1090, the 16% fare reduction from immunity

would lead to a decrease of $174, for a total saving for interline passengers of $8.9 million per year. Taking into account the increase in traffic spurred by the lower fare, the total consumer surplus gain would be $9.9 million. Note that this value is of roughly the same size as the predicted total gain from LOT, TAP, and Swiss immunity.

Immunity will also lead to fare changes in markets that exhibit different service patterns. One case is shown by city-pair market *WT*, where both online UA service and interline UA-AC service are available. There are 52 such markets in the data, with annual UA online traffic of 192,960 passengers but a much smaller amount of UA-AC interline traffic, only 5920 passengers. While convenience factors may partly explain the traffic difference, the main reason is undoubtedly the substantially higher interline fare, which equals $2100, in contrast to the average UA online fare of $1332.

While this fare difference can be expected to narrow with UA-AC global immunity, markets like *WT*, where online and interline service coexist, have not been carefully scrutinized in previous analyses of the fare benefits from immunity, even though such markets were present.[4] The special feature of a market like *WT* is that, even though UA and AC are alliance partners, the absence of global immunity means that AC may be *competing* to attract UA online passengers to its interline service. This competition, for example, could take the form of a generous prorate that limits AC's revenue from the *WT* interline passenger, which would tend to keep the interline fare as low as possible and thus attract traffic. Global antitrust immunity for UA and AC, however, may undercut the incentive for such competition. Thus, while the elimination of double marginalization would tend to move the interline fare closer to the online

[3] This number again includes passengers originating both in U.S. and overseas.

fare, the level of the online fare itself may rise due to reduced UA-AC competition.

While such an effect seems possible in principle, a key feature of these 52 markets suggests that the practical impact will be negligible. The reason is that the markets are extremely competitive, having an average of over 5 additional carriers or carrier pairs providing service.[5] This fact suggests that any loss of competition between UA and AC will have no effect on the level of fares in these markets. Given this likelihood, it is reasonable to assume that immunity will lead to the same 16% reduction in the UA-AC interline fare as before.[6] This reduction will generate a saving of $336 for each of 5920 passengers, for a total saving of $2.0 million and a consumer surplus gain of $2.2 million. Note that this presumed fare reduction does not eliminate all of the observed difference between the interline and online fares (see above), which may be partly due to other factors.

A final impact of global UA-AC immunity occurs in a city-pair market like *ZX* in Figure 1. UA provides online (possibly nonstop) service in such a market, but AC also provides online service, flying US-originating passengers to its Canadian hub *Y*, from which they travel to the overseas destination *X* on AC. Competition between UA and AC in markets like *ZX* would be reduced with global immunity, leading to potential passenger losses that would tend to offset the above gains.

Since trips occurring entirely on foreign carriers are mostly not reported in the DOT data, the volume of AC traffic in online overlap markets like *ZX* cannot be observed. However,

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[4] For example, in the AA-BA context, an analogous case would involve an interline trip on AA and BA from a U.S. endpoint to Paris via London, with BA operating the London-Paris segment. As in Figure 1, this trip could also be made using parallel AA online service.

[5] In this calculation, a competitor is a carrier providing online service or a carrier pair, neither of which is UA or AC, providing interline service.

[6] This kind of assumption was used in my previous analyses of the fare benefits from immunity. In other words, interline passengers in markets also served online by the U.S. alliance partner were assumed to enjoy the maximum fare reduction from elimination of double marginalization.

different data cited in the Joint Motion filed by UA and AC indicate that the volume is low. Specifically, the data show that *ZX*-type online service by AC accounts for less than 1 percent of U.S. traffic to overseas endpoints. As a result, online overlaps between AC and UA would appear to be inconsequential in magnitude, suggesting that potential anticompetitive effects in this situation are not important.

It should be noted that, while markets like *ZX* might appear to be a novel aspect of the UA-AC global immunity application, the questions they raise are actually familiar from previous alliance cases. In particular, the issue of online overlaps has always been a major consideration in previous cases, but the overlaps in question have usually been in nonstop, hub-to-hub markets like those connecting New York to London-Heathrow, Chicago to Frankfurt, etc. By contrast, in the *ZX* market, AC provides *connecting* service through a Canadian hub instead of nonstop service. This different service pattern, of course, is due to the fact that AC is a North American rather than European carrier, which requires the U.S. passenger to first pass through one of its Canadian hubs before traveling on to the overseas destination.

Although online overlaps in the U.S.-U.K. hub-to-hub markets were the major stumbling block in the two previous AA-BA immunity applications, such overlaps were less serious in most of the other alliance cases. Given the apparently small volume of online AC traffic in markets like *ZX,* the issue of online overlaps appears to be similarly unimportant in the present case and should not be a major concern of the DOT.

It should be noted that AC's status as a North American carrier might prompt some observers to equate the UA-AC case to the recent SkyTeam immunity case, where concerns were raised about immunizing two U.S. carriers, Northwest (NW) and Delta (DL), in the provision of international service. As shown by Brueckner (2006), NW and DL provide overlapping online

service to foreign endpoints in a large number of city-pair markets involving substantial traffic volumes for each carrier. Because AC carries negligible online traffic to overseas endpoints from U.S. cities, this kind of overlap is not present in the UA-AC case, making an analogy to the SkyTeam case inappropriate.

A final question is whether UA-AC global immunity will limit the future gains from the recently expanded U.S.-Canada open skies agreement. If that agreement somehow had the potential of spurring new online AC connecting service (via Canadian hubs) in markets like *ZX*, boosting competition in these markets, this potential might be dampened by UA-AC immunity, limiting the gains from the agreement. But since AC already has nearly unrestricted ability to provide this kind of connecting service (the agreement would only relax constraints on flight numbering), this argument is not relevant.

Under the agreement, AC would also gain the ability to carry passengers nonstop from U.S. cities to foreign endpoints outside Canada, without the need to pass through an AC hub. For example, AC would be able to provide nonstop service in market *ZX*, without taking passengers through hub *Y* (the *ZX* flight, however, must be the second leg of service that originates in Canada). If UA-AC immunity were to undercut AC's incentive to provide such service, some potential gains would not be realized. However, it seems unlikely that appreciable AC service of this type would emerge in the absence of immunity. Carriers have a strong disincentive to provide international service from airports other than their own hubs, given the lack of traffic feed at such airports. With a low incentive to provide this kind of service in the first place, UA-AC immunity would appear to have little potential to create a negative impact.

4. Conclusion

This report has evaluated the latest Star Alliance applications for antitrust immunity, providing quantitative measures of the benefits from lower interline fares. In the case of UA-LOT immunity, data from 2004 yield predicted fare benefits of $2.6 million, suggesting that combined benefits from UA immunity with LOT, TAP and Swiss amount to somewhat less than $10 million. The benefits from UA-AC global immunity amount to $9.9 million in markets where only UA-AC interline service is observed and $2.2 million in markets where UA online service is also present, for a total of $12.1 million. Combining the two estimates yields total immunity benefits of about $20 million per year.

The report also argues that any losses from reduced UA-AC online competition in markets connecting U.S. endpoints to overseas cities are likely to be unimportant. The reason is that AC online service of this type involves extremely few passengers.

References

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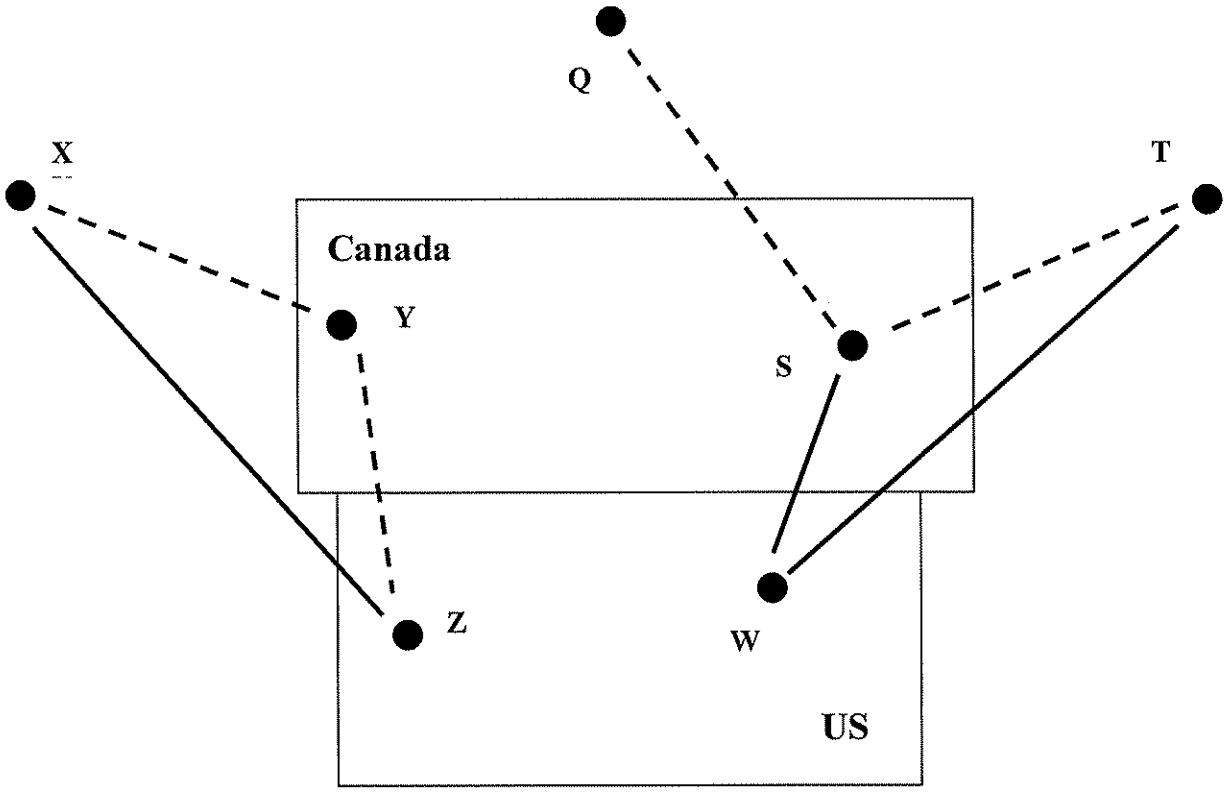

Figure 1: Global UA-AC Immunity
(UA=solid line, AC=dotted line)