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Response to Basso-Gillen-Ross Paper

RBB Economics, 26 May 2017

1 Introduction

This short note was prepared at the request of Clifford Chance LLP and Claro & Cia., legal counsels to International Airlines Group S.A. ("IAG") and LATAM Airlines Group S.A. ("LATAM").

We were asked to comment on the paper by Leonardo J. Basso, David Gillen and Thomas W. Ross that was submitted to the Chilean Competition Court ("TDLC"),[1] and in particular their remarks on the RBB calculations on the efficiencies arising from the transaction.

We will address the following points:

- Efficiencies from the reduction of double marginalisation, in particular why codeshares are not sufficient to fully eliminate double marginalisation; and

- Other efficiencies; on the one hand we explain why quality improvements likely result in an underestimate of the reduction in fares from the reduction in double marginalisation and an overestimate of the increase in non-stop

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[1] Basso, Leonardo J., David Gillen and Thomas W. Ross: "Competitive and Anticompetitive Effects of LATAM's Metal Neutral Joint Venture Proposals with American Airlines and IAG", 26 April 2017.

fares resulting from a co-operation; on the other hand we explain why by not taking into account a number of important efficiencies, the authors are not able to fully assess the effect of the transaction on consumers.

We find that Basso, Gillen and Ross agree that that the efficiencies from the reduction of double marginalisation are significant, but that they are outweighed by the negative effects to non-stop passengers. In this note, we explain why those concerns are unwarranted, and set out why the authors underestimate the benefits both to connecting and to non-stop passengers, and overstate the harm to non-stop passengers.

2 Efficiencies from the Reduction of Double Marginalisation

2.1 Codeshares not Sufficient to Fully Eliminate Double Marginalisation

First, we would like to clarify a misinterpretation of our report. Basso, Gillen and Ross say that we suggest that codeshare agreements lack the ability to reduce double marginalisation. This is not our view: code share agreements certainly reduce double marginalisation to a certain extent compared to interlining (as generally found in the literature), but codeshare agreements are unable to fully eliminate double marginalisation.

Why is this the case? As long as there is no metal neutrality, airlines prefer passengers travelling on their own metal rather than a partner's metal: in a codeshare, most of the revenue from a segment is allocated to the operating carrier.

In the case at hand, take a passenger flying from Santiago de Chile to Valencia. As described in our September 2016 paper, by controlling the fare rules for Santiago-Valencia and the inventory on Madrid-Valencia, Iberia can steer passengers to use Iberia metal on the Santiago-Madrid segment rather than an Iberia code on LATAM metal, or a LATAM code on the short-haul and LATAM code and metal on the long-haul.[2,3]

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[2] The same applies in reverse, for passengers travelling from a city in Chile, say Puerto Montt, to Madrid via Santiago.

[3] For the same reason, the arguments put forward in paragraph 121, in particular the quote of Gillespie and Richards, are not correct: Simply mapping fares into yield management systems (which is any case done for every codeshare agreement) does not rule out the possibility of differential treatment of passengers travelling on the own metal and the partner's metal as inventory of a flight typically differs based on the connecting flights requested; additionally, fare rules can be set up to allow the cheapest fares to be used on an airline's own metal only.

As such, as we have shown, passengers tend to have to pay more when travelling on the metal of two different airlines than online on a single airline.

Basso, Gillen and Ross hypothesise that if one were to observe a substantial number of connecting passengers on the metal of the codeshare partner when the airline could also place them on their own metal, this would suggest that the double marginalisation problem has been solved.

This conclusion, however, is not correct. In the example above, Iberia can only steer passengers to a certain extent towards their own metal; if passengers wish to travel on an Iberia code on LATAM metal, they can do so, even if the cost is higher. Reasons include a difference in schedule where certain passengers may prefer the schedule of one flight over the other, or a preference for one of the airlines for other reasons. Additionally, if its own flight was almost filled to capacity, Iberia would be forced to place passengers on LATAM metal flights.

Furthermore, the statement of Basso, Gillen and Ross that *"on the Santiago-Madrid segment Iberia places more passengers on LATAM flights than on Iberia flights"* is incorrect. Basso, Gillen and Ross look at multi-airline connecting passengers only, which is obviously not correct for this exercise – when Iberia successfully steers a passenger towards their own metal, this passenger will always (in the case of single connects) connect from Iberia to Iberia, and hence would not be included in the number of multi-airline connecting passengers.

And indeed, the numbers clearly indicate that more passengers that connect at Madrid between a short-haul flight in Europe and a Santiago-Madrid long-haul flight are booked on Iberia's metal than on LATAM's on the long-haul flight:

Table 1: **Comparison of Iberia's connecting pax travelling on IB and LA metal on SCL-MAD, 2015**

	Pax
Santiago-Europe with SCL-MAD on Iberia metal and Iberia code	▮
Santiago-Europe with SCL-MAD on LATAM metal and Iberia code (codesharing)	▮
Santiago-Europe with SCL-MAD on LATAM metal and LATAM code (interlining)	▮

Source: Flown tickets issued by Iberia (non-directional)

As Table 1 shows, more than ▮ times as many Iberia passengers are placed on Iberia metal compared to LATAM metal on the SCL-MAD trunk.

This result negates the conclusions of Basso, Gillen and Ross – clearly, Iberia is successful in steering passengers to their own metal. This suggests that double marginalisation has not yet been eliminated by the use of codeshares only.

Finally, the argument that airlines could already implement a straightforward codeshare structure that removes double marginalisation (and hence increases their profits) is clearly not borne out in reality as apparently, whilst not operating under a metal-neutral joint business agreement, the codesharing partners do not have the commercial incentive to conclude such an agreement – otherwise, such an agreement would already have been made.

2.2 Allocation of Efficiencies to Connecting Passengers

In paragraph 134, Basso, Gillen and Ross suggest that the efficiencies from double marginalisation should only be allocated to passengers that are currently connecting between IAG and LATAM. We note that we have followed exactly the same approach that was agreed with the European Commission in the Oneworld North Transatlantic case. As our report has been prepared not only for submission to the FNE, but also to the European Commission and CADE, we have chosen not to deviate from the precise methodology agreed with the European Commission in 2009.

3 Other Efficiencies

3.1 Qualitative Improvements and Impact on Price Effect

In a number of places in their paper, Basso, Gillen and Ross refer to a study by Zou, Oum and Yu.[4] Zou, Oum and Yu explain that on connecting routes, by co-operating, there will be the well-known effect of the reduction of double marginalisation, which reduces the fare. However, the authors explain that at the same time, co-operation typically improves the quality of the connection (e.g. one-stop check-in, better schedule coordination), which results in an increased willingness to pay for the connecting flights (i.e. the demand curve is shifted outwards). This increase in demand then results in the effect that prices tend to be higher than in the absence of this effect. The theoretical model of Zou, Oum and Yu shows that the net impact is unknown in general and depends on the specifics of the situation.

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[4] Zou, Li, Tae H. Oum & Chunyan Yu (2011), "Assessing the price effects of airline alliances on complementary routes." Transportation Research Part E: Logistics and Transportation Review, 47(3),315-332.

Importantly, this second effect (price increase resulting from increased demand due to increased quality), while resulting in an increased price, does not harm passengers, but makes them at least as well off as before, or better off, as the increased price also reflects an increase in quality. Basso, Gillen and Ross state that *"In other words, the empirical estimates of price reductions for multi-airline connecting passengers already have incorporated that quality may have increased. In that sense, the price reduction may not be the only source of benefit for consumers, although it is obviously the easiest one to measure."*

What does this mean? In reality, there are two effects (price reduction from the reduction of double marginalisation and a price increase from the improvement in quality). As the price increase from the improvement in quality does not negatively impact the welfare of the passengers, we are only interested in the first effect, the reduction in price from the reduction of double marginalisation. However, one can only observe the sum of the two effects. This means that the observed effect is lower than the actual reduction in price from the reduction in double marginalisation.[5]

As such, the studies estimating the effect of the fare reductions from the reduction of double marginalisation likely understated the actual benefit to passengers, possibly significantly.

Furthermore, the same issue occurs when estimating potential price increases on the non-stop routes after a merger or the introduction of a joint venture. By joining up, airlines will generally be able to offer a better schedule, higher frequencies, and generally a better integrated product even for non-stop passengers. As this increase in quality results in an outward shift of the demand curve, prices will increase as a result. However, these price increases would not be detrimental to passengers, as they are at the same time receiving an improved quality.

This means that even if there was no, or only a small, anticompetitive increase in price, an estimation of the effect of a co-operation on prices would result in a higher estimate for the price increase.

As such, the studies estimating the effect of potentially anticompetitive fare increases on non-stop routes resulting from the co-operation of two airlines operating on the same route likely overstated the harm to passengers, possibly significantly.

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[5] Note that in paragraph 123, Basso, Gillen and Ross suggest that it is a problem to disentangle those two effects from the output of a QSI model. However, as both a fare reduction from the reduction of double marginalisation and quality increases benefit the passengers, it is correct to express the benefit to the passengers as a price decrease, even though in reality, the benefit may be composed of both a price decrease and an increase in quality.

3.2 Basso, Gillen and Ross do not take into Account Other Efficiencies

3.2.1 Efficiency from Increased Traffic Density

In paragraph 108, the authors state that *"if the harm to non-stop passengers is larger than the benefit to multi-airline connecting passengers, then there would be no much benefits coming from these economies, as there might not be a traffic increase."*

Setting aside for a moment the fact that this reasoning is circular (the harm or benefit to non-stop passengers partly depends on benefits from traffic density), the reasoning is only correct at first sight. Assume hypothetically that there are an equal number of multi-airline connecting passengers and non-stop passengers, and that the effect on non-stop and connecting passengers would be the same, with opposite sign. In such a hypothetical case, benefits and harm would balance out exactly.

However, does this mean that there is no effect on the overall number of passengers? Not necessarily, as this depends on the price elasticity of demand for each of the groups. The authors imply in paragraph 104 that demand from connecting passengers is more elastic than demand from non-stop passengers.

In this case, the harm to non-stop passengers would result in a lower number of passengers being lost than the additional connecting passengers gained. This means that overall demand, and hence traffic density, on the trunk increases.

As such, even in the hypothetical case where the efficiencies to connecting passengers do not outweigh the potential harm for non-stop passengers, it is highly likely that passengers will benefit from reduced prices stemming from an increase in traffic density.

3.2.2 Other Efficiencies

Several other efficiencies are not taken into account by the authors when they tally the alleged harm to non-stop passengers and the benefits for connecting passengers. In our report, in addition to the benefits from a reduction in double marginalisation and increased traffic densities, we have quantified efficiencies from fare combinability, which directly apply to non-stop passengers.

Additionally, there are several consumer benefits that cannot be easily quantified:

- Variable and fixed cost savings through joint purchasing and joint usage of resources at airports;

- Scheduling benefits:

    - Better, more and/or shorter connections for connecting passengers;

    - Improved spacing of flights for non-stop and connecting passengers;

- Improved, integrated service on the ground;

- Better reciprocal benefits of the frequent flyer programmes; and

- Potential for additional non-stop flights.

And even though each of these efficiencies individually does not have a very large impact on consumer benefits, taken together, they are likely to be equivalent to a reduction in fares of several per cent. Given that even in the calculation of both the FNE, and of Basso, Gillen and Ross, the harm barely outweighs the benefits, those additional efficiencies would be highly likely to tip the balance so that benefits outweigh the harm.