THE UNILATERAL EFFECTS OF THE PROPOSED RYANAIR ACQUISITION OF AER LINGUS

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While there is continuous debate about the optimal policies of central banks, there is rarely a debate about the structure, and indeed the existence, of central banks. In this essay, David Lally boldly questions the necessity of central banks. He continues to ask: if we need them, do they need to be government controlled. His probing questions lead to an interesting rethinking of our monetary systems.

1.0. Introduction

The European Commission must be notified of any proposed concentration (i.e. acquisition, merger) with a community dimension (European Commission, 2004a). One such notification was the Ryanair proposed acquisition of Aer Lingus which occurred on the 24th of July 2012. Ryanair's first Aer Lingus takeover attempt was in 2007. The attempt was blocked by the Commission and this decision was later upheld by the General Court of the European Union. Ryanair notified the Commission of a second attempt to acquire Aer Lingus in 2009, however this was later withdrawn.

This essay examines the current proposed acquisition of Aer Lingus by Ryanair. The Commission's investigation of the proposed concentration will seek to assess whether effective competition is significantly impeded particularly as a result of the formation or strengthening of a dominant position, in the common market or part thereof (European Commission, 2004a). A dominant position is one where the entity has economic strength and can act independently of others in the market; competitors, customers and consumers (European Commission, 2009). Normal constraints in the market are weak and inefficient when applied to the dominant firm. Therefore it's easy for the dominant firm to abuse its position. However this abuse is illegal under Article 102 (ex. 82) (European Commission, 2009). The effects of the acquisition on the competitive environment are a concern in the current Ryanair/Aer Lingus case.

2.0. Competitive Environment

The competitive environment may be decisive in European Commission concentration

investigations. The Guidelines for Horizontal Mergers (European Commission, 2010) outlines two main ways concentrations can affect the competitive environment, non-co-ordinated effects and coordinated effects. Coordinated effects occur when the concentration results in a group of firms being dominant (European Commission, 2010). Due to the high market shares of Ryanair and Aer Lingus and the lack of competitors this is unlikely and so non-coordinated or unilateral effects are more prominent. Unilateral effects are a form of single firm dominance, which occurs when by eliminating competitive constraints a concentrated entity may increase market power and hence be able to increase prices without resorting to coordinated behaviour (European Commission, 2010). Werden et al. (2008) describe horizontal mergers leading to unilateral effects as those that lead to the merged firm charging a higher price, producing a lower output or acting less competitively then they would have premerger. Horner (2006) describes unilateral effects as the capability of post merger undertakings to increase prices due to the elimination of competitive constraints post concentration, and regardless of the pricing decisions of competitors in the market.

Game theory can be used to examine the likelihood of unilateral effects post concentration (Ivaldi et al., 2003). The Cournot model may be used to examine markets with a homogenous product and the Bertrand model markets with differentiated products (Werden, 2008, Werden et al. 2008, Slade 2006). Werden et al. (2008) use the Bertrand model of oligopoly to examine the likelihood of unilateral effects post concentration. Any merger involving differentiated products that doesn't lead to decreased costs will cause unilateral price effects as the merged firm finds it in its own interest to increase prices (Werden et al., 2008). Werden et al.'s (2008) analysis may be applied to the current Ryanair/Aer Lingus takeover bid. Suppose that Ryanair's price is p_R and the vector of competing brands prices is p_{-R}, on certain routes this may simply be Aer Lingus's price due to lack of third party competition. The demand for Ryanair's brand is $D_R(p_R,p_{-R})$, and the cost of producing Ryanair's brand is $C_R(D_R(p_R,p_{-R}))$. Therefore Ryanair's profits may be seen as

$$\Pi_R\,(p_R, p_{-R},) = p_R D_R\,(p_R, p_{-R},) - C_R(D_R\,(p_R, p_{-R},))$$

Nash non-competitive equilibrium describes when each firm is acting according to its best response function. So the necessary conditions for Nash non-cooperative equilibrium are as follows,

$$\frac{\partial \Pi_R\,(p_R,p_{-R},)}{\partial p_R} = D_R\,(p_R, p_{-R},) + [\,p_R - C'_R(D_R\,(p_R, p_{-R},))]\,[\frac{\partial D_R\,(p_R,p_{-R},)}{\partial p_R}] = 0$$

Denoting the elasticity of demand for Aer Lingus with respect to Ryanair as ε_R and Ryanair's price-cost margin as $m_R=[p_R-C'_R(D_R(p_R,p_{-R,}))]/p_R$. The necessary conditions may be written as

$$m_R = \frac{-1}{\varepsilon_{RR}}$$

This is the Lerner (1934) condition for monopoly equilibrium.
Therefore if Ryanair and Aer Lingus merge (p_A representing Aer Lingus's price) then the post concentration necessary conditions for equilibrium are

$$m_R = \frac{-1}{\varepsilon_{RR}} + \frac{m_A \, d_{RA} \, p_R}{p_A}$$

$$m_A = \frac{-1}{\varepsilon_{AA}} + \frac{m_R \, d_{AR} \, p_A}{p_R}$$

Where d_{RA} is the diversion ratio from Ryanair to Aer Lingus, i.e. the ratio of the increase in quantity of Aer Lingus flights sold to the decrease in the quantity of Ryanair flights sold when Ryanair's price is increased slightly. If the brands are substitutes, the final term in the equilibrium conditions is positive. Thus the concentration will increase the price of both products unless it decreases marginal costs, induces entry, or there is a repositioning of the incumbent brands. Unilateral effects occur due to the internalisation of rivalry between merging firms, thus leading them to adjust their actions. (Werden et al., 2008)

Internalisation of rivalry decreases competition, a key element to the unilateral price effects of concentration (European Commission, 2010). Loss of competition enhances the dominant position of the post-concentration entity and may increase the probability of price increases. There are a number of factors which, on their own may not have much effect but together may significantly determine whether unilateral effects are likely post concentration, including; large market shares, closeness of parties as competitors, customers ability to switch and likelihood of new competitors (European Commission, 2010). These factors are now examined in relation to the Ryanair/Aer Lingus case.

2.1 Market Shares

Market shares provide an insight into the competitive importance of the parties and their competitors (European Commission, 2010). In Hoffman-La Roche v Commission it is noted that a persistently high market share may be related to market power (European Commission, 1979). In the Ryanair/Aer Lingus case both firms have a large market shares. Aer Lingus's route overlap analysis (Aer Lingus, 2012) shows that Ryanair and Aer Lingus now overlap on a total 50 routes, an increase of 42.9% since 2007. The number of routes on which Ryanair and Aer Lingus are the sole airlines operating has doubled, from 22 routes to 44 routes (Aer Lingus, 2012). Aer Lingus (2012) also illustrate the combined market shares of the parties on the overlapping routes (based on capacity availability); 90% in Dublin (an increase from 85% in 2007), 100% in Shannon (unchanged); 100% in Cork (an increase from 92% in 2007), and 100% in Knock (Aer Lingus, 2012). These high market shares suggest the concentrated entity will have market power and unilateral price effects are likely. McAfee and Williams (1992) note that mergers creating or involving the largest firm in the market will lead to unilateral price effects.

2.2 Closeness of Competitors

The incentive for the concentrated entity to increase their price post merger is positively correlated with the degree of substitutability between the merging firms' products, making closeness of competition an important aspect in examining unilateral effects (OECD, 2011). Close competitors may act as a competitive constraint. If firms are close competitors, as their product offerings are close substitutes, then a price increase by one party would lead to customers moving to the other party. Thus neither firm will substantially increase their price for fear of losing customers to the rival firm. However if a concentration occurs between two such close competitors then this competitive constraint is eliminated post concentration. Horner (2006) claims that when 2 competitors, who produce close substitutes merge they will act rationally and increase prices recapturing customers who will switch to the previously competing product. In order to examine the closeness of competition in the current Ryanair/ Aer Lingus case the positions of the parties in the market, the business models, and the cost structures are examined.

The market in question here is flights to and from Ireland. In terms of size and market position in Ireland Ryanair and Aer Lingus are in very strong positions. The Commission noted in Air France/KLM merger procedure (European Commission, 2004b) that strong third party competitors can act as competitive constraints in the aviation market and mitigate concerns of decreased competition. Currently Ryanair and Aer Lingus they are the sole operators on 44 routes from Ireland. Even on routes on which there's a third party present Ryanair and Aer Lingus have much larger market shares then the third party and so are still each other's closest competitors. If the acquisition were to take place it is clear that the firm would be dominant and even on the 6 overlapping routes where there is third competitor the competitor would not be strong enough act as a competitive constraint.

Ryanair's main argument against Aer Lingus being its closest competitors is the difference in operating models, Ryanair as a 'no frills' airline and Aer Lingus as a 'mid frills' airline. Although this may have been the case in the past Aer Lingus have shown an increasing tendency towards the 'no frills' model of Ryanair. The operating models are similar as they both offer point-to-point flights, with a unidirectional pricing model for one-way, one-class and non refundable tickets. Both airlines also use their websites for ticket bookings (European Commission, 2007). There are some differences between the parties' business models. However differences are becoming increasingly difficult to view as significant. Gadas et al. (2007) note that the services offered by Aer Lingus for the base fare generally correspond to those offered by Ryanair at the base fare. Gadas et al (2007) maintain that Ryanair and Aer Lingus are each other's closest competitors as competitors on overlapping routes are either 'full line' service or regional airlines.

Prices may also indicate if parties are close competitors. Ryanair claims Aer Lin-

gus's business model is significantly different due to prices differences. Price correlation analysis can be used to determine if products are in the same market and how close substitutes they are, close substitutes prices tend to move together (OECD, 2011). The price correlation analysis conducted by the Commission (European Commission 2007) showed that in 2007 Aer Lingus and Ryanair prices tended to move together, suggesting that they are close competitors and that an increase in the price of one leads increase in the demand of the other. It should be noted that prices may move together due to common cost and demand shocks, this is especially prevalent when there is low price correlation (OECD, 2011). An increase in fuel prices or the European Emissions Trading Scheme are examples of cost shocks in the airline market. Due to the impact of these shocks price correlation is examined in conjunction with other aspects, such as cost structures, to determine closest competitors.

Cost structures may also indicate closeness of competitors. Price, costs and profit margins can illustrate the competitive constraints that merging parties place on each other (OECD, 2011). If a firm is actively constrained by their closest competitor then it is likely that they will try to keep costs low in order to keep profits up and prices competitive. Ryanair claims that the cost structure of Aer Lingus is significantly different that it is not credible that the parties should be each other's closest competitors (European Commission, 2007). However in 2007 the Commission found that although Aer Lingus did have higher costs these costs were lower than many other major airlines in Europe (European Commission, 2007). Therefore Aer Lingus was the closest competitor to Ryanair in terms of cost structure. Aer Lingus have since then focused even more on reducing their costs and note that in the event of a takeover Ryanair would not have the incentive to pass on future cost savings and synergies to customers and so consumer welfare would be harmed by higher prices and fewer travel choices (Aer Lingus, 2012). Consumer welfare is paramount in EU competition policy. In determining closeness of competitors and the likelihood of unilateral price effects the views of customers are taken into account.

2.3 Customers Views and Buyer Power

The main goal of EU competition policy since the Modernisation Regulation is the protection of consumer welfare in the single market, thus concentration cases often take the perceptions of the consumers into account (European Commission, 2004). In the Ryanair/Aer Lingus case in 2007 (European Commission, 2007) it is noted that overall customers consider Ryanair and Aer Lingus as closest competitors.

Consumer surveys may be used to determine diversion ratios and analyse the closeness of competitors (OFT, 2010). Higher diversion ratios, switching among customers, would suggest the parties are closer competitors. The Commission (European Commission, 2007) conducted consumer surveys and examined the results, finding that the majority of customers would switch between Ryanair and Aer Lingus. The Commission found that

when Ryanair and Aer Lingus fly to the same airport more than half of customers considered the other party when determining who to fly with. It was found that even when a third party flew to the same airport customers were significantly more likely to consider one Ryanair or Aer Lingus than the third party airline.
Even where merging firms are closest competitors a significant degree of countervailing buyer power post acquisition would act as a competitive constraint on the post concentration entity. Countervailing buyer power describes the ability of the buyer to resist a price increase. Kirkwood (as in Chen 2008) describes buyer power as the ability of buyers to withhold a benefit from the supplier if a concession is not granted. The number and size distribution of buyers in relation to sellers is a prominent element in determining countervailing buyer power, it affects how firms act in a market and determines whether price increases are plausible and sustainable (Martin, 1994). In this case although there are many customers their distribution is so fragmented that they could not pose a credible constraint on unilateral price effects post concentration (European Commission, 2007). As Aer Lingus and Ryanair are the sole operators on 44 of the routes concerned there is no credible threat of switching, so customers can't withhold a benefit from the supplier. This suggests customers do not possess countervailing buyer power.

2.4 Entry and possible competition

It is clear that the acquisition of Aer Lingus by Ryanair will lead to an elimination of actual competition, however possible entry post concentration might mitigate the threat of unilateral effects. Baumol (1982) notes that even highly concentrated markets such as monopolies may have a competitive outcome if they are contestable. A contestable market is one in which 'hit and run' entry is possible. If a dominant firm is aware that potential entrants who may undercut them they will have the incentive to keep their price at a competitive level in which this is not possible. However contestable markets are conditional on free entry, free exit, and no sunk costs. Hit and run entry is not likely in the case of Ryanair and Aer Lingus, due to the nature of the aviation market in Ireland. Barriers to entry exist in the form of start up costs and sunk costs. Sunk costs are those that a firm could not recoup to the full extent if it left the market, even if the firm managed to sell the capital assets it would be at a substantial loss (Martin, 1994). In this case sunk costs exist, such as the advertising necessary to create sufficient brand awareness of the new entrant on the Irish market. In the 2007 case (European Commission, 2007) it is noted that entry is unlikely due to sunk costs, specifically the high marketing costs of creating sufficient brand recognition at both ends of the routes. The European Commission (2004b) noted that brand prevalence is an important factor in the airline sector. The establishment of bases and attainment of slots are also significant barriers to entry. These barriers to entry prove that the Irish airline market is not subject to hit and run entry and is not contestable under Baumol's (1982) definition. This would suggest that the concentrated entity

will not be constrained by potential entrants and increases the likelihood of unilateral price effects.

3.0 Conclusion

Although the Commission has yet to make its decision on the current Ryanair Aer Lingus acquisition public it has been leaked that it will be blocked (Irish Times, 2013). This essay's analysis of unilateral effects supports this decision. The game theory analysis of a merger between close competitors with differentiated products shows that unilateral price effects are probable. The European Commission note that unilateral price effects are likely when the merging parties have large market shares, are closest competitors, consumers have little buyer power and potential entry or expansion is hampered (European Commission, 2010). The concentrated entity would have a very large market share on many routes making unilateral effects probable. The parties are closest competitors, with highly substitutable product offerings, and more similar price, cost and operating models than other competitors in the market. Thus allowing for the recapture of customers when prices are increased, even when diversion ratios are high. Customers currently display strong switching patterns between the parties, once again suggesting substitutability between the parties. Also post concentration due to lack of third parties there is no credible threat of switching and so customers would not have countervailing buyer power. So a competitive constraint is eliminated by the concentration, increasing the probability of unilateral effects. Another competitive constraint which might mitigate unilateral effects is potential entry. The market is also not contestable under Baumol's definition due to entry barrier and sunk costs. So potential entry is not, timely, likely or sufficient to constrain the firm. So the acquisition would eliminate actual competition between the parties, eliminate countervailing buyer power from consumer switching ability and entry is not likely. This would suggest that the acquisition will increase market power and the ability of the dominant firm to independently increase prices. Therefore unilateral price effects are likely. Unilateral price effects will harm consumer welfare and effective competition will be significantly impeded so the acquisition may be seen as inconsistent with the objectives of European competition policy and should be blocked.

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