

Project Outline:

Calculation of Ramsey Prices at German Airports

- (1) **Responsible:** Markus Dinse, Varvara Simakova, Tolga Ulku, Cristian Stefan, Marius Barbu
- (2) **Objective:** Provide an example of calculating Ramsey Prices for German Airports
- (3) **Hypothesis:** Ramsey pricing is considered to be a quasi-optimum pricing scheme designed for a multi-product natural monopolist. It allows costs covering and allocation of airport's available capacity efficiently. Ramsey Prices are optimal for airports with cost recovery problems, but are inefficient for busy airports (Forsyth and Niemeier). But, how much helpful and beneficial is to apply Ramsey Pricing for German Airports?
- (4) **Design/Methodology/Approach:** Following the calculations carried out by Martin-Cejas (1997) a menu of landing fees for four largest German airports using a Ramsey pricing setup will be calculated. We will concentrate on fees for different distances and five types of aircrafts with capacity of more than 100 seats. The calculated fees will be compared with the actual weight based fees charged by the airports. As German airports have increased passenger charges and reduced weight based landing charges, we will also analyze this change in regards to Ramsey prices.
- (5) **Preliminary findings:** In line to the findings of Martin-Cejas (1997) we obtain a clear monotone dependence between the ratios and distance. For any given aircraft type, the ratios increase with distance. This indicates that the Ramsey prices increase with distance faster than real weight-based fees. Contrastingly to Martin-Cejas (1997) we do not find negative dependence between the ratios and aircraft size given the distance. However, the introduction of Ramsey pricing would not change the charging patterns significantly.
- (6) **Limitations/Implications:** The obtained results should be used with care as many variables were estimated by available proxies.
- (7) **Further research:** Ramsey prices can be computed for private and business travelers separately as their price elasticity differ. A wider sample of aircraft types can be considered. Other techniques of modeling block hours per flight as a function of distance of flight can be applied. Martin-Cejas, may have wrongly assumed that the elasticity is increasing with the distance of flight. In fact, due to less transport alternatives, elasticity may actually decrease if flights are longer.

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