

*The Hong Kong Polytechnic University*  
*Department of Logistics and Maritime Studies*  
*Research Seminar*

## **Slot Hoarding: Do Carriers Deliberately Underutilize Scarce Resources at Congested Airports?**

by

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**Date: 11 November 2019 (Monday)**  
**Time: 2:30pm - 3:30pm**  
**Venue: M802, Li Ka Shing Tower**  
**The Hong Kong Polytechnic University**

**(Conducted in English)**

### **Abstract:**

I examine whether carriers hoard slots--that is, intentionally underutilize scarce capacity at congested airports--by taking advantage of a regulatory change at Newark Airport. Previous studies on this subject have only provided indirect evidence of slot hoarding. To obtain more direct evidence, I examine the effects of slot restrictions on (1) flight cancellation rate and (2) scheduled buffer time, both of which would directly lead to slots being underutilized. The results from the difference-in-differences estimation using propensity score matching indicate that, after the imposition of slot controls at Newark, both the average cancellation rate and the average scheduled buffer time for flights to and from Newark increased, in comparison to the same parameters for flights between non-slot-controlled airports. The results obtained from the estimations performed with the restricted matched sample, intended to control for the effects of airport concentration and potential congestion internalization, suggest that hoarding behavior was mainly observed for dominant carriers in the form of schedule padding. For example, according to the results, in 2013 the average scheduled buffer time for these carriers' flights to and from Newark increased by about 15 percent, compared to flights to and from other highly concentrated airports without slot restrictions. If the extra buffer times added to dominant carriers' flights at Newark were used for additional flights, Newark could have accommodated approximately 43 additional flights during slot-controlled hours in 2013.

### **Bio:**

Hideki Fukui is a professor of Public Policy in the Faculty of Law and Letters at the Ehime University. He served as a director of the Japan Civil Aviation Bureau's Policy Research Office, a division of the Ministry of Land, Infrastructure, Transport, and Tourism (MLIT), for two years (from April 2015 to March 2017). As his career suggests, his research interest lies in the field of aviation policy, especially regarding airline competition, allocation of scarce airport resources, consumer protection, and environmental protection. He has published papers in peer-reviewed journals such as *Transportation Research Part A*, *Transportation Research Part D*, and *Economics of Transportation*.

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**All are welcome!**