

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

Airline Mitigation of Propagated Delays via Schedule Buffers: Theory and Empirics

by

**Prof. Jan BRUECKNER
Distinguished Professor
Department of Economics
University of California, Irvine**

Date: 7 May 2020 (Thursday)

Time: 10:00am - 11:00am

Online Session in [Blackboard](#)*: Research Seminar by Prof. Jan Brueckner

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(Conducted in English)

Abstract:

This paper presents an extensive theoretical and empirical analysis of the choice of schedule buffers by airlines. With airline delays a continuing problem around the world, such an undertaking is valuable, and its lessons extend to other passenger transportation sectors. One useful lesson from the theoretical analysis of a two-flight model is that the mitigation of delay propagation is done entirely by the ground buffer and the second flight's buffer. The first flight's buffer plays no role because the ground buffer is a perfect, while nondistorting, substitute. In addition, the apportionment of mitigation responsibility between the ground buffer and the flight buffer of flight two is shown to depend on the relationship between the costs of ground and flight-buffer time. The empirical results show the connection between buffer magnitudes and a host of explanatory variables, including the variability of flight times, which simulations of the model identify as an important determining factor.

Bio:

Jan K. Brueckner is Distinguished Professor of Economics at the University of California, Irvine. He received a B.A. from UC Berkeley in 1972 and a Ph.D. from Stanford University in 1976, and was a long-time faculty member at the University of Illinois at Urbana-Champaign before coming to UCI in 2005. He has served as visiting professor at UC Santa Barbara and UC San Diego, and has been a visiting scholar at many foreign universities.

Brueckner has published extensively in the areas of urban economics, public economics, housing finance, and the economics of the airline industry. He served as editor of *the Journal of Urban Economics* for 16 years and is currently a member of the editorial boards of 8 journals. He has served as a consultant to the World Bank, the US Department of Transportation, many of the major airlines, and other organizations.

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Please email to anne-ly.wong@polyu.edu.hk for enquiries regarding the seminar.

All are welcome!