

**Faculty of Business Administration** 

SEMINAR SERIES No. 02/1011 Economics

## "Market Competition and the Adoption of Pharmaceutical Innovation: Evidence from Taiwan"

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## Abstract

In recent years, a substantial amount of technological progress in medicine has taken the form of pharmaceutical innovation. This paper uses the launch of a series of new drugs designed for treating type 2 diabetic patients as an example to investigate the determinants that affect the diffusion of new medical technology. Based on prescription-level data that are obtained from the national health insurance program in Taiwan, we find that the probability of prescribing new drugs declines as more competing products enter the pharmaceutical market. Meanwhile, physicians are less likely to prescribe new drugs to treat their patients as the provider market becomes less concentrated. These results suggest that the providers' incentives for cost reduction dominate incentives for quality improvement as markets become more competitive and hence an increase in market competition is associated with a decrease in the diffusion of new drugs. As a result, access to new drugs is not uniform among patients in a country with universal coverage for prescription drugs. An important implication of our study is that profit-seeking behavior among providers can become an access barrier to new medical technology.

Date: 21 October 2010 (Thursday)

Time: 15:00 – 16:30

Venue: JM 18

## ALL ARE WELCOME!

## A Short Biography of Prof. Ya-Ming Liu

Prof. Ya-Ming Liu is Associate Professor and Acting Chair of Economics at National Cheng-Kung University in Taiwan. Prof. Liu received her B.S. in Economic from National Cheng-Chi University in Taiwan, M.S. in Economics from Peking University in China, and Ph.D. in Applied Economics with minor in Health Services Research from University of Minnesota at Twin Cities in US. She currently teaches health economics, microeconomics, and methodology of social sciences in the Department of Economics, and pharmaceutical economics in the Institute of Clinical Pharmacy.

Prof. Liu's recent research has investigated a number of questions in health economics, with a focus on hospital and pharmaceutical industry. Her work addresses issues such as hospital competition behavior, the adoption of new drugs, and the competition of pharmaceutical industry in a regulated market. This has resulted in publications in journals like Journal of Health Economics, Journal of Developing Areas, and Applied Economics. The paper published in Journal of Health Economics – "Financial incentives and physicians' prescription decisions on the choice between brand-name and generic drugs: evidence from Taiwan" empirically investigates physician prescription decision on the choice between brand-name and generic drugs is influenced by the profit margin between the reimbursement and the acquisition price in a health care system where physicians both prescribe and dispense drugs. Her recent work includes: (1) New Drugs and the Growth of Health Expenditure: Evidence from Diabetic Patients in Taiwan; (2) Market Competition and the Adoption of Pharmaceutical Innovation: Evidence from Taiwan; (3) Regulation and Competition in the Pharmaceutical Market under National Health Insurance.

Prof. Liu is a founding member of the Taiwan Society of Health Economics (TaiShe). Her current research on pharmaceutical issues toward health care sector is the frontier of health economics in Taiwan. She is also an expert in the application of National Health Insurance Research Database (NHIRD) on pharmaceuticals. She was one of the main speakers in the workshop – The Application of NHIRD on Health Economics Research – held by TaiShe in 2009.