臺灣地區本國銀行成本效率之實證研究
——隨機邊界模型之應用*

黃台心

淡江大學經濟系專任副教授

摘　要

　　本研究探討臺灣地區本國銀行廠商的技術與配置效率問題，附帶研究規模經濟、範圍經濟及其他相關課題。以 22 家本國銀行爲研究對象，樣本期間自民國 70 年到 81 年，共計 12 年，由此組成 panel data。迴歸模型爲超越對數成本函數體系，將模型中的隨機干擾項給予適當假定，採用最大概似法進行估計，利用這些係數估計值，可進而研究各銀行之規模與範圍經濟以及技術與配置無效率是否存在等問題。

　　研究結果顯示：一、無論公營或民營銀行均有規模經濟及範圍經濟；勞動與資本二要素間，具替代關係；而資金與前二者間則爲互補關係；二、樣本銀行普遍存有經濟無效率，其中技術無效率情況較配置無效率嚴重；三、勞動與資金配置失當造成銀行經營成本增加的程度大致相當；四、樣本銀行的經營效率沒有隨時間經過而有明顯改善趨勢；五、銀行經營效率高低與其生產成本（規模）大小有相當程度關係；六、民營銀行技術效率較公營行庫佳，公營行庫則較具備配置效率。

壹、緒　論

　　民國 80 年，政府開放新商業銀行加入經營，允許各銀行增加分支機

An Empirical Study on Cost Efficiency of Domestic Banking in Taiwan–An Application of the Stochastic Frontier Model

Tai-Hsin Huang

Department of Economics
Tamkang University

ABSTRACT

A translog cost function with three inputs (deposits, labor, and capital) and three outputs(financial investment, short-term loans, and long-term loans) is used to examine the cost efficiency of domestic banks in Taiwan. Overall, input-specific cost complementarities and Allen-Uzawa partial elasticities of substitution are estimated using the ML estimation procedure and panel data composed of 22 domestic banks from 1981 to 1992. Overall and input-specific scale results indicate considerable increasing returns. Cost complementarities among outputs are detected between financial investment and long-term loans and between short-term and loan-term loans. This implies that the estimated cost function exhibits economies of scope. Evidence is found that labor and capital are substitutes whereas deposits are complementary to labor and capital.

Evidence is also found that there exists economic inefficiencies in each sample bank, and technical inefficiency is found to be more serious than allocative inefficiency on the average. The public banks have larger percentage increases in total costs resulting from technical inefficiency while allocative inefficiency causes a greater percentage increase in total costs to the private banks. In addition, technical inefficiency tends to increase with total costs through time.

Key Words: elasticity of substitution, economies of scale, economies of scope, technical inefficiency, allocative inefficiency