The co-integration of Taiwanese macroeconomic factors and outbound tourists

Abstract
This paper is trying to study the relationship between outbound tourists and some important macroeconomic factors such as household disposal income, misery index, exchange rate, the ratio of consumption of recreation, education, and cultural service to total household consumption, and average weighting stock price index, all of which are based on annual data of Taiwan. In the tourism economic model, the five adopted macroeconomic factors are regarded as independent variables, on the contrary, the outbound tourists as a dependent variable. Firstly, the methods of DF(Dickey-Fuller), ADF(Augmented Dickey-Fuller), and Phillips & Perron are used to test whether unit roots exist or not. Then it is summed up that the outbound tourists, exchange rate, and average weighting stock price index variables belong to I(1), household disposal income and the ratio to I(2), and misery index to I(0). Finally, Engle and Granger two-stage co-integration test is used to check the co-integration of outbound tourists and the two tested I(1) variables.

Keywords: Outbound tourist, Unit root test, Co-integration test

I. 前言
在这一波世界观光旅游的热潮中台湾也没有缺席，台湾于1979年开放国人出国观光旅游，随著经济发展出国人数逐年快速成长，根据观光局资料统计，出国统计数据从1980年的484,901人次到2009年已达8,142,946人次，成长幅度惊人，其中又以1988年的成长率达51.4%最高。而与同期来台旅客人数相比，1980年台湾出国人数相於同年来台旅客人数1,393,254人，几乎少了整整90万人次，到了2009年时，出国人数比来台旅客却足足多了近400万人，台湾已经是一个人人都在旅游的世代，为什麼在短短的26年间有如此巨大的转变？究其原因包括许多有形和无形的因素，如教育与文化、休闲与娱乐、种族传统、气候、健康和运动等，但以宏观面而言政府及观光业者大都将之归结於国内整体经济变数的影响，其中包括了汇率的波动、消费者物价指数、国内生产毛额、工业生产指数的成成长、股价指数等因素的影响，使得每年出国观光人数