國 立 高 雄 科 技 大 學
企 業 管 理 系 碩 士 班
碩 士 論 文

政府支出與經濟成長長期關係之研究
—非線性 ARDL 模型之應用

Research on the Long-term Relationship between
Government Expenditure and Economic Growth：
Evidence from Nonlinear ARDL

研 究 生：謝雅祺
指導教授：李政峯　博士

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摘要

　　政府支出與經濟成長之間的關係是許多學者所關心的議題，本文以 OECD 八個國家為研究對象分別為：加拿大、瑞士、英國、日本、紐西蘭、澳大利亞、丹麥、韓國。使用 Pesaran *et al.*（2001）的邊界共整合檢定並運用誤差修正模型（Error Correction Model）進行分析政府支出與經濟成長之間的長期關係，並以非線性 ARDL 檢定變數之間的長期關係並探討線性、非線性及線性和非線性之間的關聯。

　　實證結果發現，八個國家的政府支出與經濟成長均存在共整合關係，但線性、非線性及線性和非線性的結果，則因不同的國家，而有不同的結果。詳言之，在線性檢定結果得知：GDP 增加政府支出也會增加，表示 GDP 和政府支出呈現正向關係。在非線性檢定結果得知：在景氣低迷時，GDP 增加 1% 在政府支出方面相較於景氣活絡時會呈現三種不同的結果：1.減少幅度低 2.減少幅度大 3.反而增加。在線性和非線性檢定結果得知：在景氣低迷時對於政府支出會呈現兩種不同的結果：1.減少幅度低 2.減少幅度大。最後測試不對稱影響，加拿大、日本、澳大利亞、丹麥、韓國存在不對稱影響，表示景氣會影響政府支出。

關鍵字：單根檢定、共整合檢定、經濟成長、非線性 ARDL

Research on the Long-term Relationship between Government Expenditure and Economic Growth：Evidence from Nonlinear ARDL

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ABSTRACT

Nowadays, the relationship between government expenditure and economic growth is an essential topic of concern for many scholars. This article takes the eight countries of OECD as the object of study: Canada, Switzerland, the United Kingdom, Japan, New Zealand, Australia, Denmark, and South Korea. Using the boundary cointegration test of Pesaran *et al.* (2001) and applying the error correction model to analyze the long-term relationship between government expenditure and economic growth and to identify long-term relationships between nonlinear ARDL test variables.

The empirical results show that the government expenditures of these eight countries have a co-integration relationship with economic growth. However, linear and nonlinear results have different results for different countries. In conclusion, the results of the linear verification: if GDP increases, government spending will also increase, indicating a positive relationship between GDP and government spending. According to the results of the non-linear test, when the economy is in recession, the increase of 1% in GDP will have three different results when compared with the booming economy: 1. A low rate of decrease 2. A large decrease 3. It will increase. The results of the linear and nonlinear tests show that in the downturn of the economy, there will be two different results for government expenditures: 1. Low reduction 2. Large reduction. The study tested the effects of asymmetry at the end, with asymmetric effects in Canada, Japan, Australia, Denmark, and South Korea, indicating that the economy will affect government spending.

Keywords：Unit Root Test、Co-integration test、Economic growth、Nonlinear ARDL