

The analysis of equilibrium real exchange rate on return of foreign deposit : 以新台幣兌澳幣 為例 / 沈佩瑛 撰 .- 彰化縣大

沈佩瑛、陳美玲

E-mail: 354514@mail.dyu.edu.tw

ABSTRACT

In recent years, Australian Dollars has drawn great interest to domestic foreign deposit investors for its high deposit interest rate and strong currency appreciation. However, the return of foreign currency deposit is greatly affected by exchange rate fluctuation; therefore this research believes the importance of study on forecasting exchange rate between two countries. This research is based on Equilibrium Real Exchange Rate Model found by Elbadawi(1994), and aims to estimate the Real Effective Exchange Rate of both Taiwan and Australia. Furthermore, to build ARIMA Model to forecast the future index of Real Effective Exchange Rate for both Taiwan and Australia. The forecasting result is then used to study effect of exchange rate fluctuation on return of foreign currency deposits by analyzing the relative appreciation between these two. It also provides the reference of best investment period in AUD Term Deposits. The finding of this research shows that the actual exchange rate generally corresponds to both Taiwan and Australia ' s equilibrium real effective exchange rate. Both Taiwan and Australia ' s real effective exchange rate have shown convergent ability in Error Correction Model. The result of this research suggests that AUD has been overvalued relative to NTD, and therefore NTD shows trend to appreciate in future. Within the forecasting period, the result of the research shows that nine months AUD term deposit has the highest risk of exchange rate fluctuation, and the three months AUD term deposit has the least risk. The result of the forecast also suggests that within the forecast period, the investment loss caused by exchange rate fluctuation should be greater than the interest return on AUD term deposit.

Keywords : Equilibrium Real Exchange Rate、Equilibrium Real Effective Exchange Rate Index、Autoregressive Integrated Moving Average、ARIMA

Table of Contents

| | |
|---------------------------|------|
| 中文摘要 | iii |
| 英文摘要 | iv |
| 誌謝辭 | vi |
| 內容目錄 | vii |
| 表目錄 | viii |
| 圖目錄 | ix |
| 第一章 緒論 | 1 |
| 第一節 研究背景與動機 | 1 |
| 第二節 研究目的 | 5 |
| 第三節 研究架構與研究流程 | 5 |
| 第二章 文獻探討 | 8 |
| 第一節 外幣存款投資之影響因子 | 8 |
| 第二節 均衡實質匯率理論 | 11 |
| 第三章 研究方法 | 21 |
| 第一節 資料處理與來源 | 21 |
| 第二節 單根檢定 | 23 |
| 第三節 共整合檢定 | 25 |
| 第四節 誤差修正模型 | 26 |
| 第五節 ARIMA模型 | 28 |
| 第四章 研究結果 | 30 |
| 第一節 單根檢定結果 | 30 |
| 第二節 共整合檢定結果 | 31 |
| 第三節 誤差修正模型 | 35 |
| 第四節 ARIMA模型 | 39 |

| | |
|---------------------|----|
| 第五章 結論與建議 | 46 |
| 第一節 結論 | 46 |
| 第二節 研究建議 | 48 |
| 參考文獻 | 49 |
| 附錄A | 53 |
| 附錄B | 54 |

REFERENCES

- 一、中文部分 吳美慧(2010). 外幣篇 台幣、人民幣以外，還有哪些強勢貨幣？澳、紐、星幣是三大首選標的 (pp. 118). Retrieved from 慧科WiseNews Concert 全國學術版 何俊宏(2010)，技術分析指標在最適投資組合上的應用-以主要的外幣交易為例，中原大學國際貿易研究所碩士論文。邱玉玲(1998)，臺灣均衡實質匯率之實證研究，臺灣經濟，255，37-48。官明儀(2007)，人民幣均衡實質匯率實證分析，國立政治大學國際經營與貿易所碩士論文。陳學毅(2004)，時間序列及灰色預測模型之應用-匯率預測模型績效之研究，東海大學國際貿易研究所碩士論文。張齊家(1989)，台灣最適外幣投資組合之研究，淡江大學金融研究所碩士論文。曾致勝(2008)，臺灣美元存款的決定因素-重大事件與政策影響，國立臺灣大學社會科學院經濟學系碩士論文。楊奕農(2009)，時間序列分析 經濟與財務上之應用，雙葉書局。劉君偉(1989)，投資期對外幣投資組合管理之影響，淡江大學財務金融學系碩士論文。趙文志(2010)，2009年美元走勢之探討與對台灣經濟之影響，經濟研究，第10期，經建會經濟研究處。趙登峰(2005)，人民幣市場均衡匯率與實際均衡匯率研究，社會科學文獻出版社 賴詠薇(2010)，資料探勘運用於台灣外幣市場避險與套利之研究，淡江大學管理科學研究所碩士論文。蔡妮娜(2004)，小型開放經濟體系匯率制度與貨幣政策效果之分析-SVAR模型對台灣之應用，國立成功大學政治經濟學研究所碩士論文。鍾惠民，周賓鳳，孫而音(2011)，財務計量: Eviews的運用，新陸書局 二、外文部分 Agenor, P.-R., & Khan, M. S. (1996). Foreign Currency Deposits and the Demand for Money in Developing Countries. *Journal of Development Economics*, 50, 101-118. Blundell-Wignall, A., Fahrer, J., & Heath, A. (1993). Major influences on the Australian Dollar Exchange Rate, *International Trade and Balance of Payments*, Reserve Bank of Australia:30-78. Box, G.E.P., & Jenkins. G. (1976). *Time Series Analysis: Forecasting and Control*, Holden-Day. Chen, M. L. & Biswas, B. (1998). The Determination Of Equilibrium Real Exchange Rate For Taiwan, 1981-93. *Western Economic Association International* Dickey, D.A., & Fuller, W.A. (1979). Distribution of the Estimators for Autoregressive Time Series with a Unit Root. *Journal of the American Statistical Association*, 74, 427-431. Dornbush, R. (1973). Tariffs and Non-Traded Goods, *Journal of International Economics*, 4, 177-185. Driver, L. R., & Westaway, P. F. (2004). Concepts of equilibrium exchange rates. Bank of England, Working Paper No. 248. Edwards, S. (1989). Real Exchange Rates, Devaluation, and Adjustment: The MIT Press. Elbadawi A. I. (1994). Estimating Long-Run Equilibrium Real Exchange Rate. Institute for International Economics, edited by John Williamson. Washington, D.C. Engle R. F., & Granger, C.W.J. (1987). Co-integration and Error-Correction: Representation, Estimation, and Testing, *Econometrica*, 55, 251-276. Fung, B. S. C., & McCauley, R. N. (2001). Analyzing the growth of Taiwanese deposits in foreign currency, *BIS Quarterly Review*, September, 49 – 55. Gonzalo, J. (1994). Five alternative methods of estimating long-run equilibrium relationships. *Journal of Econometrics*, 60, 203-233. Granger, C.W.J. (1983). Cointegrated variables and error-correcting models, Discussion paper 83-13, University of California, San Diego, CA. Granger, C.W.J., & Weiss, A. A. (1983). Time series analysis of error correctiog models. *Studies in Economics, Time Series, and Multivariate Statistics*, Academic Press, New York, 255-278. Gruen, D.W. R., & Wilkinson J. (1991). Australia 's real exchange rate - is it explained by the terms of trades or by real interest differentials?. Reserve Bank of Australia, Research Discussion Paper, September. Johansen, S. (1988). Statistical analysis of conintegration vectors. *Journal of Economic Dynamics and Control*, 12, 231-254. Krugman, P. R. (1990). Equilibrium Exchange Rates. Paper presented at the National Bureau of Economic Research. McCauley, R. N. (2010). Foreign currency borrowing in emerging Europe: households as carry traders. *BIS Quarterly Review* September 2010, 18-19. Pantula, S.G., Graciela, G-F., & Fuller, W.A. (1994). A comparison of unit-root test criteria. *Journal of Business & Economic Statistics*, 12, 449-459. Said E., & Dickey, D.A. (1984). Testing for unit roots in autoregressive moving average models for unknown order. *Biometrika*, 74, 599-607. Voss, G. M., & Willard, L. B. (2003). The transmission of shocks to a small open economy: Evidence from a structural model. Williamson, J. (1983). The exchange rate system. Institute for International Economics, Washing, DC: The MIT Press. Zhang, X. (2002). Equilibrium and misalignment: An assessment of the RMB exchange rate from 1978-1999.