

外匯利差交易投資組合策略

學生：蔡昀竹

指導教授：羅志賢 博士

國立高雄應用科技大學金融資訊研究所

摘要

本文主要探討已開發國家與開發中國家貨幣之利差交易策略績效表現的差異，所以考慮之策略包括單一貨幣策略、等權投資組合策略、最適投資組合策略等三種，並利用年化平均報酬、夏普比率、期望短缺來做為績效評估之依據。

研究結果發現，在單一貨幣利差交易中，基準貨幣為日圓及台幣，則對英鎊及澳幣的利差交易均能獲得超額報酬；若基準貨幣為瑞郎，利差交易並無利潤可言。在利差交易投資組合策略中，若基準貨幣為日圓與台幣，對已開發國家貨幣的利差交易可獲取超額報酬；若利差交易的對象為開發中國家貨幣，則無任何基準貨幣具有超額報酬。

關鍵字：利差交易、投資組合、夏普比率、期望短缺

The Portfolio Strategies in Forex Carry Trade

Student : Yen-Zhu Tsai

Advisors : Dr. Chih-Hsien Lo

Institute of Finance And Information

National Kaohsiung University of Applied Sciences

ABSTRACT

This article investigates the profitability difference of carry trade (CT) strategies between developed and emergent countries. The strategies considered include currency CT, equal-weighted portfolio CT, optimized portfolio CT. The annualized rate of return, Sharpe ratio, expected shortfall are then used to compare the profitability of various strategies.

We find that the single currency CT between JPY, TWD and GBP, AUD do have excess return. However, the single currency CT between CHF and any currency is profitless. In the portfolio CT between JPY, TWD and the currencies of developed countries, the profit is remarkable. However, none of the portfolio CT between any base currency and the currencies of emergent countries have excess return.

Keywords : Carry trade, Portfolio, Sharpe ratio, Expected Shortfall

目錄

摘要	I
ABSTRACT	II
誌謝	III
目錄	IV
圖目錄	VI
表目錄	VII
第一章 緒論	1
第一節 研究動機	1
第二節 研究目的	3
第三節 研究架構	4
第二章 文獻回顧	5
第一節 利差交易	5
第二節 相關文獻探討	7
第三章 研究方法	13
第一節 投資背景與想法	13
第二節 投資組合的建構	13
第三節 風險的衡量	17
第四節 績效的衡量	19
第五節 研究流程補充	21
第四章 實證結果與分析	23
第一節 資料來源與期間	23
第二節 實證結果	24
第五章 結論與建議	41
第一節 結論	41

第二節 後續研究建議.....	42
參考文獻.....	43
附錄.....	47



參考文獻

- Acerbi, C. and Tasche, D., (2002). "Expected Shortfall: a Natural Coherent Alternative to Value at Risk." *Economic Notes* 31(2), 379-388.
- Andersen, T.G., Bollerslev, T., Diebold, F.X., and Labys, P., (2001). "The Distribution of Realized Exchange Rate Volatility." *Journal of the American Statistical Association* 96, 42-55.
- Artzner, P., Delbaen, F., Eber, J.M., and Heath, D., (1997). "Thinking Coherently: Generalised Scenarios rather than VAR should be used when Calculating Regulatory Capital." *Risk* 10(11), 68-71.
- Artzner, P., Delbaen, F., Eber, J.M., and Heath, D., (1999). "Coherent Measures of Risk." *Mathematical Finance* 9(3), 203-228.
- Basak, S., and Shapiro, A., (2001). "Value-at-Risk Based Risk Management: Optimal Policies and Asset Prices." *The Review of Financial Studies* 14(2), 371-405.
- Becker, C., Clifton, K., (2007). "Hedge Fund Activity and Carry Trades." *Research on Global Financial Stability: The use of BIS International Financial Statistics, CGFS Publications* (29), 156-175.
- Brinson, G.P., Singer, B.D., and Beebower, G.L., (1991). "Determinants of Portfolio Performance II: An Update." *Financial Analysis Journal*, 47(3), 40-48.

Brunnermeier, M.K., Nagel, S., and Pedersen, L.H., (2008). "Carry Trades and Currency Crashes." NBER Working Paper.

Burnside, C., Eichenbaum, M., and Rebelo, S., (2007). "The Returns to Currency Speculation in Emerging Markets." *American Economic Review* 97, 333-338.

Burnside, C., Eichenbaum, M., Kleshchelski, I., and Rebelo, S., (2008). "Do Peso Problems Explain the Returns to the Carry Trade?" NBER Working Paper.

Christoffersen, P.F., and Giorgianni, L., (1999). "Interest Rate Arbitrage in Currency Baskets: Forecasting Weights and Measuring Risk." *Journal of Business and Economic Statistics*, 242-253.

Christiansen, C., Ranaldo, A., and Söderlind, P., (2011). "The Time-Varying Systematic Risk of Carry Trade Strategies." *Journal of Financial and Quantitative Analysis* 46(4), 1107.

Darvas, Z. (2009). "Leveraged Carry Trade Portfolios." *Journal of Banking & Finance* 33(5), 944-957.

Dunis, C.L., and Miao, J., (2007). "Trading Foreign Exchange Portfolios with Volatility Filters: The Carry Model Revisited." *Applied Financial Economics* 17, 249-255.

Gagnon, J.E., and Chaboud A., (2007). "What can the Data Tell us about Carry Trades in Japanese Yen?" *FRB International Finance Discussion Paper* No. 899.

Galati, G., Heath, A., and McGuire, P., (2007). "Evidence of Carry Trade Activity." *BIS Quarterly Review* 3, 27-41.

Guo, H., and Savickas R., (2008). "Forecasting Foreign Exchange Rates Using Idiosyncratic Volatility." *Journal of Banking & Finance* 32(7), 1322-1332.

Hattori, M., and Shin H.S., (2007). "The Broad Yen Carry Trade." *Institute for Monetary and Economic Studies*, Bank of Japan.

Johnson, R.S., Hultman, C.W., and Zuber, R.A., (1979). "Currency Cocktail and Exchange Rate Stability." *Columbia Journal of World Business*.

Jurek, J.W., (2008). "Crash-Neutral Currency Carry Trades Mimeo." Princeton University, Princeton.

Levy, H., and Sarnat, M., (1970). "Internationally Diversification of Investment Portfolios." *American Economic Review*. 60(3), 668-675.

Levy, H., and Lerman, Z., (1988). "The Benefits of International Diversification in Bonds." *Financial Analysis Journal*. September.

Lustig, H., Roussanov, N., and Verdelhan, A., (2008). "Common risk factors in Currency Markets." NBER Working Paper.

Markowitz, H. M., (1952). "Portfolio Selection." *Journal of Finance*, 7, 70-91.

Markowitz, H. M., (1959). "Portfolio Selection: Efficient Diversification of Investments." New York: Wiley & Sons.

Pukthuanthong, K., Thomas III, L.R., and Bazan, C., (2007). "Random Walk

Currency Futures Profits Revisited." *International Journal of Managerial Finance* 3, 263-286.

Ranaldo, A., and Söderlind, P., (2010). "Safe Haven Currencies." *Review of Finance* 14(3), 385-407.

Sharpe, W. F., (1964). "Capital Assets Prices: A Theory of Market Equilibrium under Conditions of Risk." *Journal of Finance*, 19, 425-442.

Thomas III, L.R., (1986). "Random Walk Profits in Currency Futures Trading." *Journal of Futures Markets* 6, 109–126.

Villanueva, O. M., (2007). "Forecasting Currency Excess Returns: Can the Forward Bias Be Exploited?" *Journal of Financial and Quantitative Analysis* 42(4), 963-990.

Yamai, Y., and Yoshioka, T., (2002a). "On the Validity of Value-at-Risk: Comparative Analysis with Expected Shortfall." *Monetary and Economic Studies* 20(1), 57–86 (Bank of Japan).

Yamai, Y., and Yoshioka, T., (2002b), "Comparative Analyses of Expected Shortfall and VaR (2): Expected utility maximization and tail risk." *Monetary and Economic Studies* 20(2), 95–115 (Bank of Japan).

Yamai, Y., and Yoshioka, T., (2002c), "Comparative Analyses of Expected Shortfall and VaR (3): Their validity under market stress." *Monetary and Economic Studies* 20(3), 181–237 (Bank of Japan).