資產品質不對稱效果對總體經濟與信用風險關係之影響

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中文摘要

近年來有越來越多學者為了解一國金融穩定及風險管理，分別透過各種計量模型探討總體經濟與銀行信用風險間的關係。但卻僅少數文獻研究兩者間可能存在的非線性關係。本文主要採 Hansen(1999)之門檻迴歸模型並以跨國為例，探討不同資產品質之銀行，在受到不同總體經濟因子的衝擊，對銀行信用風險的影響程度為何。實證結果顯示：1、先進工業國家與新興工業國家，在受總體經濟的衝擊，對銀行信用風險會有不同的影響關係。2、各國總體經濟與銀行信用風險間的關係，隨銀行不良放款比率高於或低於該門檻值，其將有不同之變動影響關係。3、最後，與美、日、韓三國相比，墨西哥、印度兩國之商業銀行，不論其銀行資產品質之高低，其總體經濟衝擊對銀行信用風險的影響程度，皆較美、日、韓三國所受之影響的程度高。

關鍵字:總體經濟因子、追蹤資料門檻迴歸模型、信用風險、資產品質、不良放款比率

Will Asset Quality Cause Asymmetric Effects on the Relationships between Macroeconomics and Credit Risk

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ABSTRACT

For financial stabilizing and risk managing, there are many papers to study the relationships between macroeconomics and bank credit risk by using a variety of econometric models, but only few researches have applying the non-linear models to study it. The aim of this paper is, being based on Marcucci and Quagliariello (2009)'s conceptual framework, to investigate the asymmetric impact of macroeconomic factor on banking credit risk by applying Hansen (1999)'s panel threshold model. The empirical results show that: First, there are different relationships, comparing with advanced industrial countries and newly industrialized countries, between macroeconomics and bank credit risk. Second, bank's asset quality, being higher or lower than the threshold, will change the relationships between macroeconomics and bank credit risk. Final, comparing with the US、Japan and Korea, the impacts from macroeconomics on credit risk are more higher in Mexico and India, no matter whether asset qualities of commercial banks are higher or lower.

Keyword: Macroeconomic factors、Panel threshold regression models、Credit risk、Asset quality 、Non-performing loan ratio

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Ahmad, N.H., (2003). “Credit Risk Determinants: By Institutional Type”, Proceedings of Malaysian Finance Association Conference, 2003.

Ahmed, A.S., Takeda, C., Shawn, T., (1998). Bank Loan Loss provision: A Reexamination of Capital Management, Earnings Management and Signaling Effects. Working Paper, Department of Accounting, Syracuse University, 1-37.

Ali, A. Daly, K., (2010). “Macroeconomic Determinants of Credit Risk: Recent Evidence from a Cross Country Study.” International Review of Financial Analysis, 19(3), 165-171.

Ali Choudhary & Amjad Ali & Shah Hussain & Vasco J Gabriel, (2012). "Bank Lending and Monetary Shocks: Evidence from a Developing Economy," Working Papers id:4771, ESocial Sciences

Ariff, M., Marisetty, V.B., (2001). “A New Approach to Modeling Multi-Country Risk Premium Using Panel Data Test Method”, Proceedings of MFS Conference in Cyprus, 2003.

Arpa, M., Giulini, I., Ittner, A.,Pauer, F. (2001). The Influence of Macroeconomic Developments on Austrian Banks: Implications for Banking Supervision. BIS Papers, 1, 91-116.

Babihuga, R. (2007). "Macroeconomic and Financial Soundness Indicators: An Empirical Investigation," IMF Working Paper, No.115, 2007.

Bruche M, González-Aguado, C (2010), 'Recovery Rates, Default Probabilities, and the Credit Cycle', Journal of Banking and Finance, 34(4), p.713-723

Caprio, G. Jr., Klingebiel, D. (1997). “Bank Insolvency: Bad Luck, Bad Policy and Bad Banking”, Michael Bruno and Boris Pleskonic, eds. Annual Bank Conference on Development Economic 1996, the World Bank.

Calvo,G., Leiderman,L., Reinhart, C.(1994). “The Capital Inflows Problem: Concepts And Issues.” Contemporary Economic Policy, 12, 54-66

Das, A., Ghosh, S. (2007). “Determinants of Credit Risk in Indian State-owned Banks: An Empirical Investigation.” Economic Issues, Vol. 12, no. 2, pp. 48-66

De Nicoló, Gianni, Batholomew, Philip, Zaman, Jahanara, and Zephirin, Mary, (2003). Bank Consolidation, Conglomeration and Internationalization: Trends and Implications for Financial Risk. IMF Working Paper No. 03/158.

Eng, L. L., Nabar, S. (2007). “Loan Loss Provisions by Banks in Hong Kong, Malaysia and Singapore.” Journal of International Financial Management and Accounting, 18(1), 18-38.

Faia, E., (2011). Credit Risk Transfers and the Macroeconomy. Kiel Working Paper, 1677, Kiel Institute.

Fischer, K.P., Gueyie, J.P.,Ortiz, E., (2000). “Risk-taking and Charter Value of Commercial Banks’ From the NAFTA Countries”, Paper Presented at the 1 st

International Banking and Finance Conference, Nikko Hotel, Kuala Lumpur, Malaysia.

Fofack, H. (2005). “Non-Performing :Loans in Sub-Saharan Africa: Causal Analysis and Macroeconomic Implications.” World Bank Policy Research, Working Paper No. 3769.

Gilchrist S., Ortiz A., Zakrajsek E. (2009). Credit Risk and the Macroeconomy: Evidence from an Estimated DSGE Model. Federal Reserve Board, mimeo.

Hansen, B.E., (1999). “Threshold Effects in Non Eynamic Panels: Estimation, Testing, and Inference.” Journal of Econometrics, 93, 345–368.

Hoggarth & Steffen Sorensen & Lea Zicchino (2005). "Stress Tests of UK Banks Using A VAR Approach," Bank of England Working Papers 282, Bank of England.

Ivan Baboucek & Martin Jancar (2005). "Effects of Macroeconomic Shocks to the Quality of the Aggregate Loan Portfolio," Working Papers 2005/01, Czech National Bank, Research Department.

Jaap Bikker & Paul Metzemakers, (2004). "Is Bank Capital Pro-cyclical? A Cross-Country Analysis," DNB Working Papers No 9 , Netherlands Central Bank, Research Department.

Jakubík, P. (2007): “The Macroeconomic Environment and Credit Risk”, Czech Journal of Economics and Finance, 1(2), 60-78.

Carmen M. Reinhart, & Graciela L. Kaminsky, (1999), " The Twin Crises: The Causes of Banking and Balance of Payments Problems ", American Economic Review, 89(3): 473–500.

Kearns, A. (2004). Loan Losses and the Macroeconomic: A Framework for Stress Testing Credit Institutions Financial Well-Being. Journal of Financial Intermediation, 12(3), 111-121.

Kim, H., Lee, B.Y. (2004), “The Effects of Foreign Bank Entry on the Performance of Private Domestic Banks,” Bank of Korea Working Paper.

Kraft, Evan and Ljubinko, Jankov (2005). “Does Speed kill? Lending Booms Andtheir Consequences in Croatia,” Journal of Banking and Finance, 29,105-121.

Lopez, J.A., (2004). “The Empirical Relationship Between Average Asset Correlation, Firm Probability of Default, and Asset Size,” Journal of Financial Intermediation, 13, 265-283. .

Marcucci, J., Quagliariello, M. (2009). “Asymmetric Effects of the Business Cycle on Bank Credit Risk,” Journal of Banking and Finance, 33, 1624–1635.

McAllister, P. H., McManus, D. (1993). “Resolving the Scale Efficiency Puzzle in Banking,” Journal of Banking and Finance, 17, 389-406.

McKinnon, R. (1973). Money and Capital in Economic Development, Washington, D.C.: The Brookings Institution.

Ronald I. McKinnon & Huw Pill (1999), “Exchange Rate Regimes for Emerging

Markets: Moral Hazard and International Overborrowing” Oxford Review of Economic Policy, 15, 423-64.

Nickell, P., Perraudin, W., Varotto, S. (2000), “Stability of Rating Transitions”, Journal of Banking and Finance, 24, 203-227.

Pesola, J.(2001), “The Role of Macroeconomic Shocks in Banking Crises”, Discussion Paper No.6, Bank of Finland.

Quagliariello, M.(2007). “Banks Riskiness over the Business Cycle: a Panel Analysis on Italian Intermediaries.” Taylor and Francis Journals, vol. 17(2), 119-138.

Salas, V., Saurina, J. (2002). “Credit Risk in Two Institutional Regimes: Spanish Commercial and Savings Banks,” Journal of Financial Services Research, 22(3), 203-224.

Shaw, E. S.(1973), Financial Deepening in Economic Development, New York: Oxford University Press.

Shrieves, R., Dahl, D. (1992). “The Relationship between Risk and Capital in Commercial Banks”. Journal of Banking and Finance, 16(2), 439-457.

Tracey, M.arlon (2007). “A VAR Analysis of the Effects of Macroeconomic Shocks on Banking Sector Loan Quality in Jamaica”, BOJ Working Paper, 1-38

Uhde, Andre and Ulrich Heimeshoff (2009), "Consolidation in Banking and Financial Stability in Europe", Journal of Banking and Finance, Vol. 33, 1299-1311.

Uiboupin, J. (2005), Short-Term Effects of Foreign Bank Entry on Bank Performance in Selected CEE Countries, Bank of Estonia working papers, Bank of Estonia.

Williams, B. (2002). “The Defensive Expansion Approach to Multinational Banking: Evidence to Date.” Financial Markets Institutions & Instruments, 11 (2): 127–203.

Wilson, Thomas C, (1998): “Portfolio Credit Risk”, Federal Reserve Board of New York, Economic Policy Review, 71-82, October.