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Review

Non-interest income, profitability, and risk in banking industry: A cross-country analysis

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ABSTRACT

Using bank accounting data for 22 countries in Asia over the period 1995–2009, this article applies the dynamic panel generalized method of moments technique to investigate the impacts of non-interest income on profitability and risk for 967 individual banks. We find that non-interest activities of Asian banks reduce risk, but do not increase profitability on a broad sample basis. Specifically, when considering bank specialization and a country's income level, the results become complicated. Non-interest activities decrease profitability as well as increases risk for savings banks. The impact is also different for commercial, cooperative, and investment banks either by increasing profitability or reducing risk. On the other hand, non-interest activities raise risk for banks in high income countries, while increasing profitability or reducing risk for banks in middle and low income countries. Finally, our results reveal that the persistence of risk is greatly affected by bank specialization and a country's income level, as all risk variables present persistence from one year to the next. Our findings suggest that the type of bank specialization matters for the effect of diversifying revenue sources.

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1. Introduction

In the past few decades, non-interest-based activities in the bank sector have attracted much attention, with a broad spectrum of studies focusing on the association between non-interest income and bank profitability or risk. Most existing literature, however, are based on U.S. or European banks, whereas the related topic for Asian banks has not induced much discussion yet (Hsieh, Chen, Lee, & Yang, 2013). Due to the more important role played by emerging economies in the global financial markets, banking development in Asia area should not be absent from any discussion panel.[1]

Using individual bank data from 1995 to 2009 for 967 banks from 22 Asia countries, this article examines the impact of non-interest income on profitability and risk in Asian banks. We examine the return on both assets and equities (ROAA and ROAE) and their volatility simultaneously in order to evaluate the effect of non-interest activities on the trade-off in a bank's profitability and risk, which is a growing stream of research in the banking system. We also explore if the influence of non-interest income varies under different bank specialization and a country's income level. We find that the non-interest activities are more relevant to a reduction in risk than to an improvement in profitability. The effect of non-interest income does differ for banks with various specializations and for banks in countries with different income levels.

Banks in Asia play an important role because they are the predominant source of finance for businesses in this continent's private sector (Deesomsak, Paudyal, & Pescetto, 2004; Hsieh et al., 2013; Ito, 2006; Lee & Hsieh, 2013a, 2013b). They have also experienced their own banking crises, and bank restructuring programs presently continue in several Asian countries (Agusman, Monroe, Gasbarro, & Zumwalt, 2008; Shehzad & De Haan, 2013). Furthermore, Adams (2008) notes some substantial changes that have occurred in the banking system in Asia after the 1997/1998 crisis, making it an entity worthy of further investigation. First, many banks in the region have significantly expanded their business into household lending and real estate. Whether such expansion into household lending has reduced the risks faced by regional banking systems is still not clear, though the risk-reduction benefits of such lending in mature economies have generally been assumed. Second, although the core business of lending is still dominant, after the 1997 crisis an increasing number of banks moved into investment-banking and related activities, especially in Hong Kong, South Korea, and Singapore. The shifts toward non-interest income or fee-based activities such as securities underwriting and trading, securitization, and derivatives, have blurred the lines across different financial institutions and have been facilitated by relatively liberal laws for banking and securities business or by changes in regulations. These changes warrant an investigation on issues related to non-interest activities in Asian banks.

Considering the lack of research on non-interest activities for Asian banks, this article intends to deeply discuss this topic. We investigate the following questions. Whether non-interest activities

[1] The banking sector documents the transmission of monetary policy, in which changes of interest rates or bond rates can impact one economy's economic growth, stock markets, and insurance markets (e.g., Hammoudeh and Sari, 2011; Lee et al., 2013; Torres, 2003; Wang and Mayes, 2012).