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The linkage between insurance activity and banking credit: Some evidence from dynamic analysis

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ABSTRACT

This paper investigates the long-run and short-run linkages between insurance activity and banking credit for G-7 countries. To minimize the pretest bias and overcome the structural changes, we adopt the bootstrap Granger causality test applied to full sample and subsamples with a fixed window size. The Johansen cointegration test with GMM-IV estimator finds a long-run positive relation between the series. The full sample results of bootstrap Granger causality test show that there is predictive power from life insurance activity to banking credit only for France and Japan, while the short-run causal relationships between nonlife insurance activity and banking credit are country-specific. However, parameter stability test results suggest that the short-run results in full sample are unreliable. The results of rolling VAR models report that the causal linkages between them are time-varying across various subsamples. These findings offer some useful insights for achieving the co-evolution between insurance and banking credit markets.

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1. Introduction

In 1964, the first conference of UNCTAD acknowledged the development of insurance markets in one country as an essential aspect of economic growth. For the last two decades, the insurance markets all over the world have grown rapidly. During the period 1997–2007, the world's total written real premiums increased by 55 percent every year from US$ 0.63 trillion to US$ 4.13 trillion. Moreover, insurance companies worldwide wrote US$ 4.07 trillion in direct premiums in 2009, which indicates that the equivalent of at least 7 percent of global GDP was used to purchase insurance products (Lee, Huang, & Yin, 2013; Lee, Lee, & Chiu, 2013). As an important component of financial system, a large body of the theoretical literature (for example, Dorfman, 2008; Haiss & Sumegi, 2008; Njegomir & Stojic, 2010; Rejda, 2005; Skipper, 1997; Skipper & Kwon, 2007) has discussed the insurance industry's influence on the economy and society. These ways are: (i) promoting financial stability; (ii) facilitating trade and commerce (the most ancient insurance activity); (iii) mobilizing domestic savings; (iv) allowing different risks to be managed more efficiently by encouraging the accumulation of new capital; (v) fostering a more efficient allocation of domestic capital; (vi) helping to reduce or mitigate losses. In addition, there are likely to be different effects on economic growth from life and nonlife insurance markets given that these two types of insurance business protect households and corporations from different kinds of risk. Specifically, life insurance companies facilitate long-term investments rather than short-term investments as do the case for nonlife insurance industry. Therefore, the life and nonlife insurance activities affect economic growth in diverse ways. On the contrary, similar to the demand-following theory, the demand of life and nonlife insurance markets may be promoted by providing more and more capital shortage and risk merging with the development of local economy.

For the past few years, substantial scholars have paid their attentions on the linkage between insurance activity and economic growth, and along with many different econometric models there is a variety of conflicting results (Lee, Huang, et al., 2013; Lee, Lee, et al., 2013). In general, the previous works can be classified into three kinds. One is for the one-way impact of insurance activity on economic growth (Beenstock, Dickinson, & Khajuria, 1988; Haiss & Sumegi, 2008; Lee, 2011; Soo, 1996), which supports the supply-leading theory. Another is for the one-way impact of economic growth on insurance activity (Beck & Webb, 2003; Browne & Kim, 1993; Lee & Chiu, 2012; Outreville, 1990), which corresponds to the demand-following theory. The third kind is for the causal nexus between insurance activity and economic growth (Chang, Lee, & Chang, 2013; Han, Li, Moshirian, & Tian, 2010; Kugler & Ofoghi, 2005; Lee, Huang, et al., 2013; Lee, Lee, et al., 2013; Nejad & Kermani, 2012; Vadlamannati, 2008; Ward & Zurbruegg, 2000), to investigate the application of both the supply-leading and demand-following theories.

Corresponding to the important economic roles of insurance markets, in the mid-September 2008, the Federal Reserve firmly believed that it is necessary to lend out not just once but twice to American International Group (AIG), in order to keep the world's largest property-liability insurance conglomerate afloat (Harrington, 2009; Litan, 2009). The U.S. government is aware of that a failed AIG will give its economy big shock and promote the outbreak of the global financial turmoil, and the insurance market wields will significantly affect over the world economy and the financial sectors around the world (Lee, Huang, et al., 2013; Lee, Lee, et al., 2013). What is more, the bankrupt of AIG would result in a serious shock. Therefore, the Federal Reserve wanted to assist AIG during the 2008 financial crisis. Meanwhile, along with the financial innovation, the changes in the global financial environment have led to growing business opportunities for the insurance industry. Insurance companies have evolved new-style insurance contracts to enable investors to generate capital profits and meet their financial requirements for life. A well-developed insurance market will broaden the investment spectrum and extend investment maturities. In addition, there may be some interactions between insurance activity and other financial markets owing to their different economic roles in the process of economic growth (Arena, 2008; Han et al., 2010; Lee, 2013; Liu & Lee, 2014; Tennant, Kirton, & Abdulkadri, 2010; Webb, Grace, & Skipper, 2005). However, to our best knowledge, the research on investigating the vital linkages between insurance and other financial markets is less developed. Overall, the above ideas prompt the initial motivation of this paper.