Research in International Business and Finance 36 (2016) 447–458

Contents lists available at ScienceDirect

Research in International Business and Finance

journal homepage: www.elsevier.com/locate/ribaf

Insurance penetration and economic growth nexus: Cross-country evidence from ASEAN

Rudra P. Pradhan[a,*], B. Mak Arvin[b], Neville R. Norman[c,d], Mahendhiran Nair[e], John H. Hall[f]

[a] Vinod Gupta School of Management, Indian Institute of Technology, Kharagpur 721302, India
[b] Department of Economics, Trent University, Peterborough, Ontario K9J 7B8, Canada
[c] Department of Economics, University of Melbourne, Victoria 3053, Australia
[d] Department of Economics, University of Cambridge, Cambridge CB3 9DD, UK
[e] School of Business, Monash University Malaysia, Jalan Lagoon Selatan 47500, Malaysia
[f] Department of Financial Management, University of Pretoria, Pretoria 0028, South Africa

ARTICLE INFO

Article history:
Received 7 November 2014
Received in revised form
23 September 2015
Accepted 24 September 2015
Available online 9 October 2015

JEL classification:
L96
O32
O33
O43

Keywords:
Insurance market penetration
Broad money
Stock market capitalization
Economic growth
ASEAN
Granger causality
ARF countries

ABSTRACT

This paper investigates whether there are Granger causal relationships between insurance market penetration, broad money, stock-market capitalization, and economic growth, using panel data for the Association of South East Asian Nations (ASEAN) Regional Forum (ARF) countries for the 1988–2012 period. Using a multivariate framework, we show that all the variables are cointegrated and reveal a network of causal connections, including short-run bidirectional causality between insurance market penetration and economic growth. Recommendations based on this study include establishing a sound regulatory framework for a country's insurance industry, and introducing professional education and certification of insurance personnel to ensure adherence to global best practices and standards. Moreover, opening up a country's domestic insurance market to larger foreign players can ensure a wider choice of cost-effective, quality insurance.

1. Introduction

A growing strand of the financial economics literature shows the transition to high and sustained economic growth is preceded by the emergence of modern flexible financial systems, a process called 'financial diffusion.' So, well-managed public finances, a stable money supply, central banks, banking systems, securities markets and sound insurance markets causally predate economic development. And the studies show that financial diffusion is important even in small economies;

* Corresponding author.
E-mail addresses: rudrap@vgsom.iitkgp.ernet.in (R.P. Pradhan), marvin@trentu.ca (B.M. Arvin), n.norman@unimelb.edu.au, nrn1v@econ.cam.ac.uk (N.R. Norman), mahendhiran.nair@monash.edu (M. Nair), john.hall@up.ac.za (J.H. Hall).

http://dx.doi.org/10.1016/j.ribaf.2015.09.036

that financial development fosters development by mobilizing savings, mitigating risks and helping to evolve legal and regulatory institutions (for instance, Andersson et al., 2010; Bolbol et al., 2005; Colombage, 2009). But the role of insurance markets in economic growth has been less thoroughly examined than the role of banks and stock markets (Arena, 2008; Chang et al., 2013; Lee et al., 2013a,b,c; Chen et al., 2013).

The importance[1] of the insurance–economic growth relationship[2] has been recognized in the literature (Beck and Webb, 2003; Guochen and Wei, 2012; Lee et al., 2013a,b,c). Insurance contributes[3] to the economy in many ways, both directly and indirectly, to sustain high economic growth. Hence, insurance,[4] like other financial services, has grown significantly in importance in ensuring sustainable economic growth (Holsboer, 1999).

Recent studies document positive relationships between insurance penetration and economic growth (for instance, Ward and Zurbruegg, 2000) but neglect the direction(s) of causality. Thus, our challenge here is to advance the research beyond documenting correlations to examining the causal relationship between the development of the insurance industry and economic growth (for instance, Lee et al., 2013a,b,c). Causality may run adversely: insurance penetration may simply be an outcome of economic growth (for instance, Beck and Webb, 2003; Catalan et al., 2000). Those prior studies that do study causality tend to use only a bivariate framework with narrow coverage (for instance, Chang et al., 2013). A multivariate framework is essential for causality analysis between insurance-growth relationships. Some use panel data, involving many countries over time. Some examine the link between insurance markets and other economic growth, banks and stock markets, but few papers concentrate on the causal link(s) between these variables.[5]

Here we investigate whether there are demonstrable Granger causal relationships[6] between insurance penetration, banking intensity, stock market depth, and economic growth, using a panel dataset covering the Association of Southeast Asian Nations (ASEAN) Regional Forum (ARF) countries[7] for the 1988–2012 period. Evidently, increased banking activities foster insurance activities. Analogously, insurance penetration requires the development in stock markets for the placement of funds deposited with insurance intermediaries. The direction of causality between these variables in a multivariate framework invites rigorous investigation.

Our multivariate panel-data estimation procedure offers robust estimates by using variations between countries, as well as variations over time. We adopt a sample of countries that have hitherto received little attention; and we use more advanced econometric techniques than have previously been used in this literature, to establish whether there are causal links between the variables. We comment on the direction of the causal nexus between insurance penetration and economic growth. We make a contribution to the literature by determining the direction of causality between any two variables in the presence of the other two variables.

The remainder of this paper is organized as follows: Section 2 provides an overview of insurance markets in the ASEAN countries; Section 3 presents a summary of the prior literature; Section 4 describes our sample, variables, and data; Section 5 describes our econometric estimation strategy and presents the results; and the final section concludes with policy implications and recommendations.

2. An overview of the development of insurance markets in ASEAN countries

ASEAN has ten member countries, namely Brunei Darulssalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar (Burma), the Philippines, Singapore, Thailand and Vietnam and a population of 600 million people. ASEAN has experienced rapid economic development, with a total income level of close to USD 2.4 trillion (Lim, 2014). The further integration of these ten economies and the implementation of the ASEAN Free Trade Agreements (FTAs) is expected increase regional income and trade by 5% and 11.6%, respectively (Plummer and Chia, 2009). Intra-ASEAN trade has increased rapidly over the last decade, escalating to USD 600 billion in 2013 (Lim, 2014).

[1] Insurance makes many economic activities possible. Its role extends beyond contributing to the size of the finance sector, to employment, and to the magnitude of assets under management. In fact, economic growth is often seen in parallel with the soundness of national insurance markets (Outreville, 1996).

[2] Some relevant prior studies are the following: Andersson et al. (2010), Chang and Lee (2012), Chang et al. (2013), Lee (2011, 2013), Lee et al. (2013a,b,c), Liu and Lee (2014), and Webb et al. (2005).

[3] Insurance contributes to national economies by (1) promoting financial stability and reducing volatility; (2) being a substitute for government programmes; (3) facilitating trade and commerce; (4) mobilizing savings; (5) enabling risk to be managed more efficiently; (6) encouraging loss mitigation; and (7) fostering an efficient capital allocation (for instance, Han et al., 2010; Liu et al., 2014).

[4] Insurance markets have grown in importance to become a central theme in modern economics (D'Arcy and Gorvett, 2004).

[5] For example, Horng et al. (2012).

[6] We omitted other important variables such as urban population growth, the youth dependency ratio and interest rate, considered by other studies (for example, Chang and Lee, 2012), in order to concentrate on the link between insurance penetration, banking intensity, stock market depth, and economic growth.

[7] ARF consists of the group of 25 countries and the European Union. The countries in this forum are Australia, Bangladesh, Brunei, Cambodia, Canada, China, East Timor, India, Indonesia, Japan, the Korean Republic, Laos, Malaysia, Mongolia, Myanmar, New Zealand, Pakistan, Papua New Guinea, the Philippines, the Russian Federation, Singapore, Sri Lanka, Thailand, the United States of America, and Vietnam. These countries are further clustered into three sub-groups: member countries, dialogue partner countries, and observer countries. The member countries are Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam. The dialogue partner countries are Australia, Canada, China, the European Union, India, Japan, New Zealand, the Korean Republic, the Russian Federation, and the United States of America. The observer countries are Bangladesh, East Timor, Mongolia, Pakistan, Papua New Guinea, and Sri Lanka.