Editorial

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The Geneva Association, by its global reach and dynamics, has always looked towards topical subjects and new markets to develop its activities and help the field of insurance to highlight its contribution to the global and national economies. Asia, as a very dynamic and fast-growing region, has especially seen its insurance sector develop and thrive, taking new leads. It is important to show regional differences in the way of needs and specificities of insurance. The development of new markets for and products in insurance is a visible sign of this. The Geneva Association thus came to the logical conclusion that a Special Issue on Insurance in Asia was definitively of the essence. We therefore dedicate this issue of *The Geneva Papers on Risk and Insurance—Issues and Practice* to the region.

Asia, the region of diversification and dynamic inter-connectedness

When discussed in comparison with America (North, Central and South), Europe and Africa, Asia, covering East, South and Central Asia and the Middle East, appears to be one of the most diversified regions in the world.

It really is a tough job to summarise the characteristics of Asia in a few simple words. It is diversified in terms of climate, cultural heritage, religion, demography and stage of economic development.

In terms of GDP per head in 2008, as an example, while countries and regions such as Japan, Singapore, Brunei, Hong Kong and Macau are reporting more than US\$30,000, Nepal and Afghanistan are reporting less than US\$450. In addition, in large countries in population and land space such as China and India, disparity of GDP per head is huge between booming big cities and rural areas.

For the discussion and analysis of macroeconomies and financial markets in Asia, grouping is often applied to countries: emerging economies such as China, India or Indonesia; developed and fully industrialised economies such as Japan, South Korea, Singapore, Hong Kong or Taiwan; and other developing economies. However, we should not forget the ever-growing, dynamic inter-connectedness of Asian economies that has been propelled by the intra-regional trade and investment and the building of supply chains.

Stocktaking of “gap” and “contrast” as a guide to in-depth research and strategic planning in the insurance markets in Asia

Reflecting the diversification and complexities of Asia as discussed in the above paragraph, it is also a tough challenge to articulate characteristics of the Asian

insurance markets in a systematic order. What I suggest is to let me try a stocktaking of gaps and contrasts between fact A and fact B in Asia as an initial guide towards finding challenge and opportunities for academic research or strategic planning for investing in the Asian insurance market.

Gap between the development of the insurance sector and manufacturing sector

In 2009, while the total non-life insurance premiums in the world recorded a 0.1 per cent decrease from the previous year, Asia, including the Middle East and Central Asia, recorded a 5.6 per cent increase from the year before. It is a remarkable achievement, but the Asian share in the world market still remains at only 15 per cent. When we hear that the total number of automobiles manufactured in Asia is nearly half of the world total, and emerging multinational companies from Asia are promoting their international presence, everyone has to admit that the insurance sector is lagging behind Asian manufacturing sectors.

Gap between catastrophic events caused by climate change/extreme weather and lower penetration of insurance/inadequate adaptation

According to Swiss Re's sigma, natural catastrophes and man-made disasters caused economic losses of US\$62 billion in 2009. Of this world total, Asia represents 27 per cent. However, in terms of insured loss, its share is only 9.3 per cent. The total number of victims in Asia is 62.9 per cent of the world total. While the total amount of the economic losses and the total number of victims change every year, the Asian share has been following a similar trend. This clearly demonstrates a lower take-up ratio of insurance coverage and inadequate adaptation and preparedness against large-scale risks. As of 2009, 10 out of the 20 most populated cities in the world are located in Asia. We are concerned that further urbanization in Asia, the accumulation of population and property risks, and the higher frequency of large-scale events caused by extreme weather and climate change will aggravate the existing gap.

Gap between remarkable growth of top line and sluggish growth of bottom line in some lines of non-life insurance

While it is not unique to Asia, some insurers are tempted to compromise their underwriting discipline and seek market share for its own sake. In fact, in some markets in Asia, a major line of non-life insurance such as automobile insurance is recording a higher loss ratio than break-even threshold due to price competition. The appropriate pricing of risk is the core business skill of our industry, and has to be kept in mind as one of the most important lessons from the U.S. banking sector's subprime loan debacle. With the implementation of the risk-based solvency framework, inappropriate pricing of risk may bring serious prudential and risk management concern. Here is a new mantra. For both insurance company and supervisor, prudence starts with risk-based pricing and underwriting.

Gap between growing exposure and capital position of insurance markets

According to the September 2010 issue of *The Review*, the global market share of the Asian non-life direct premiums and ceding reinsurance premiums are 15 per cent and 30 per cent, respectively. This indicates the relatively lower retention ratio in Asia. This situation has been frequently discussed in the markets, especially those filled with many (60–80) insurance companies, for years, but no major changes or initiatives have been observed. The regulator's increasing interest in the international trend towards risk-based solvency framework and growing concerns about large-scale losses to be caused by natural, man-made catastrophes, including pandemic, may trigger more serious discussion and planning on how to address issues of capital increase. While the capital positions of local insurers present different pictures from market to market, would capital strengthening be achieved through capital injection by main shareholders or partnership with foreign investors or consolidation among local insurers?

Gap between moving to an ageing society and inadequate pension system (Gap between longevity risk and its financing)

Japan is the world's front runner in the race towards an ageing society. However, Japan is not alone. Eventually, other Asian countries will follow a similar trend, given the lower fertility rates (average number of children per woman) in countries such as China, Hong Kong, Taiwan, South Korea and Singapore. It is reported that the so-called "population bonus period" may come to an end sooner than usually anticipated in certain Asian countries. Such forecasts will encourage greater participation of women and older people in the labour market and a reform of the State and private pension as well as the health-care system.

Gap between growth of life-insurance liability and availability of long-term bonds

While it may be limited to certain markets, due to a relatively higher growth ratio of GDP, life insurance companies are building long-term liabilities, but they only have a limited availability of the long-term bonds in their capital market. This situation will bring a stressful situation to their asset liability management (ALM). Of course, they can transfer part of the risk to the international reinsurance market or mitigate risk through derivatives. But these risk mitigation methods are subject to volatility in the market.

Development of the sound capital market in tandem with growth of insurance market is a desirable picture we should look for.

Compiled papers as steps for further analysis and source of stimulus

Papers in this compilation cover very topical subjects: climate change and challenges of leading insurers in the world, pricing of automobile insurance in Taiwan, the impact

of corporate governance on efficiency performance of the Thai non-life insurance industry, determinants of household demand of insurance in South Korea, and a New DC (defined contribution) plan framework to enhance retirement income security in Korea.

The first paper, *Is the Design of Bonus-Malus Systems Influenced by Insurance Maturity or National Culture? Evidence from Asia*, by Sojun Park, Jean Lemaire and Choong Tze Chua, evaluates the toughness towards consumers of 16 Asian bonus malus systems (BMS) and its correlation with cultural and economic variables. The authors use principal components analysis to define a Maturity Index of insurance markets, and find supporting evidence for a conjecture that, as markets become more mature and policy-holders more sophisticated, countries adopt tougher BMS. In addition, they find, using regression analysis, that using a Common Law legal system is a crucial factor in BMS design. Cultural variables, such as uncertainty avoidance, also influence BMS.

The second paper, by Wen-Yen Hsu and Pongpitch Petchsakulwong, looks at *The Impact of Corporate Governance on the Efficiency Performance of the Thai Non-Life Insurance Industry*. This paper examines the relation between corporate governance and efficiency performance of public non-life insurance companies in Thailand over the period 2000–2007. Data envelopment analysis is used to compute an insurer's efficiency performance, including technical, allocative, cost and revenue efficiency. The authors then employ truncated bootstrapped regression to test the relation between efficiency performance and corporate governance. The results show that the characteristics of corporate governance influence the efficiency performance of non-life insurers. In particular, board independence, diligence and firm size have a positive impact on the efficiency performance of the Thai non-life insurance companies. However, audit committee size, diligence, divergence between voting rights and cash flow rights, board tenure, board age, as well as board ownership have a negative impact on the efficiency performance. Finally, the empirical evidence also indicates that there is an unclear relation between an insurer's efficiency performance and the board size, the proportion of financial expertise on an audit committee, and the board compensation.

The next paper is by Kyonghee Lee and Jooho Sung on *A New Korean Defined Contribution Plan Framework to Enhance Retirement Income Security: Combining Life Cycle Funds with Compulsory Annuitisation*. The intention is to construct a new Korean defined contribution operation structure that better meets retirement income security by integrating accumulation and payout phases. For this, two approaches are compared: a lump sum withdrawal programme supported by a principal preservation fund (i.e., current approach), and the combination of compulsory annuitisation with life cycle funds (i.e., alternative approach). The authors set benchmark incomes, annuity incomes from the immediate life annuity policy, purchasable at retirement with the accumulated assets of life cycle funds. The above two approaches are then assessed in terms of the probability of shortfall employed here to measure the longevity risk, at a Value-at-Risk of 50, 75 and 95 per cent, respectively. Consequently, it is shown that the alternative approach provides better retirement income security than the current approach.

The following paper, by Chu-Shiu Li, Chih Hao Lin, Chwen-Chi Liu and Emilio Veneziano on *Pricing Effectiveness and Regulation: An Examination of*

Premium Rating in Taiwan Automobile Insurance, examines premium determination of voluntary automobile insurance policies and risk classification under Taiwan's heavily regulated rating system. On the basis of a unique data set, the authors investigate the appropriateness of the official one-size-fits-all rating formula for insurers by calculating an actual premium, a pure premium in terms of incurred loss, and a loading factor to account for different insurance coverage types. Empirical evidence indicates that there are large discrepancies between average actual premiums and average pure premiums, requiring large loading factors. The official formula captures the regular loss pattern but not excess claims, due to biased claims' behaviour. In addition, average loss ratios for all coverage types are closely correlated and profitability is high.

The last paper, on *Determinants of Household Demand for Insurance: The Case of Korea* by Soon-Jae Lee, Soon Il Kwon and Seok Young Chung, analyses the effect of household characteristics on the demand for insurance using consumer survey data in Korea. Using Tobit analysis, the authors have found that the self-employed have a stronger demand for insurance than salaried workers, and that residents of small cities and rural areas purchase more protection-type insurance than metropolitan residents. Demand for insurance can differ depending on employment type and residential area, which has not been examined in previous studies. The authors have also found that there is a curvilinear relationship between age and demand for insurance. Results suggest that households with different demographic characteristics choose different risk-reducing instruments.

Finally, The Geneva Association has contributed to the issue of climate change and insurance, taking an Asian viewpoint, through Kunio Ishihara, the Co-chair of The CC+I Project of The Geneva Association, Chairman of the Board at Tokio Marine & Nichido Fire Insurance Co., Ltd. and Vice-Chairman of The Geneva Association. Following The Geneva Association's 37th General Assembly in 2010 in Zurich, Mr Ishihara further analysed The Geneva Association's role in the global debate on climate change, as well as its contribution to different insurance projects globally, *inter alia*, on the subjects of enhanced disclosure practices on climate change risks and offering mitigation and/or adaptation tools to the developing world, which is most badly hit by climate-related disasters and incidents. Indeed, the United Nations International Strategy for Disaster Reduction is running a campaign in the period 2010–2011: Making Cities Resilient.¹ The campaign intends to raise awareness and commitment for sustainable development practices that will reduce disaster risk and increase the safety of citizens in cities or urban centres who count for more than half of the world's population. From the Asian perspective, it is worth noting that out of the global top ten populated cities exposed to coastal flood hazard, six are found in Asia, namely Mumbai, Guangzhou, Shanghai, Ho Chi Minh City, Kolkata and Osaka-Kobe. The recently reported flood incidents serve as painful reminder of the fact that approximately 90 per cent of victims of water-related disasters on the globe between 1978 and 2007 were found in the Asia-Pacific region. As the statement makes clear, the striking intensity of natural catastrophes does not permit inactivity.

¹ <http://www.unisdr.org/english/campaigns/campaign2010-2011/>.

Mr Ishihara also highlights the fact that The Geneva Association's ethos has always been to make ceaseless efforts in studying the challenges to the insurance industry, and sharing the findings both internally within the community and externally to help others understand the industry's position. As clearly expressed in the "Kyoto Statement of The Geneva Association", the association stands to offer a unique platform to pool the knowledge and expertise of the insurance sector. The Geneva Association continues to act as a key hub for the international network of experts on climate change and insurance.

We really hope this compilation presents interesting reading for professionals, impetus towards further research for academics and strategic business planning orientation for practitioners in the industry.