

Keynote Address by Assistant Governor at the 16th East Asian Actuarial Conference Theme: "Venture into Uncertainty, Capture Opportunities"

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It gives me great pleasure today to deliver the keynote address for the 16th East Asian Actuarial Conference, with the theme "Venture into uncertainty, capture opportunities". I would like to thank the EAAC committee and the Actuarial Society of Malaysia for organising this event in Kuala Lumpur. I also wish to extend a warm welcome to all participants, particularly those from abroad.

### **Risk, Uncertainty and Opportunity**

Risk and uncertainty are defining characteristics of the world we live in. Modern evolution in finance is largely distinguished by its successful efforts first to understand, and then to control risk. This began with the development of probability theory leading more recently to the theory of portfolio selection, financial economics and the renowned but later somewhat disparaged Black-Scholes formula, as well as the developments in behavioral economics. However, despite the long strides made and milestones achieved along the way, there are indeed many miles to go before we sleep, to quote Robert Frost in his meaningful poem.

As the financial world continues to transform in meeting the evolving needs of developed and emerging economies, the nature of financial risk continues to evolve in nature, scale and complexity. Innovations in the design and distribution of products have increased the choice, accessibility and affordability of insurance and other financial products for all segments of society. However, such innovations bring with them additional risks to financial institutions, customers, and the financial system as a whole.

As East Asia grows in importance as a global trade and investment partner, the greater degree of interlinkages, both within the region and internationally, will increase the likelihood of financial risk contagion. This will require greater regional and global cooperation in the areas of macroprudential regulation and microprudential supervision, especially on entities that have presence in multiple jurisdictions.

### **Forces of change impacting Asia over the next decade and opportunities for the Actuarial Profession**

Over the recent decade, the Asian insurance industry has seen significant progress and expansion. This has been driven in large part by rapid economic transformation taking place throughout the region, resulting in a growing and more affluent middle-income population. Going forward, we expect the industry to be shaped primarily by the ageing demographic in the region, inspiring the introduction of new products such as pensions, long-term care and annuities. While these new products fill a very real need, they are not without risk and will require significant care and diligence from the actuarial profession in their development and management.

We also expect to see significant growth coming from the takaful sector. Globally, takaful contributions are expected to record an annual growth of between 15 to 20%, with the global takaful market size estimated to reach 7 US billion dollars by 2015. New family takaful licenses issued by Bank Negara in Malaysia earlier this year will allow both established and strong life insurance players that already have a presence in the domestic market, as well as new entrants to expand in the takaful space. Indeed, the development of strong and dominant family takaful players in Malaysia represents an important strategy of Malaysia as an International Islamic Financial Centre to tap a wider demography and the enormous growth potential represented by the 1.5 billion global Muslim population. Among the key recent developments in this sphere is the issuance of the Risk Based Capital Framework for Takaful by Bank Negara as a concept paper to the industry with the goal of harmonising the capital requirements between insurance and takaful.

Against this backdrop of growth and innovation, there has also been a significant change in the regulatory landscape that will most certainly impact the work of actuaries. Through Solvency II, European regulators are charting new ground in terms of expectations on risk management by insurers. In particular, the directive recommends the "three lines of defence" model for managing risks within insurance organisations. This has key implications to the way the actuarial function is currently structured as it requires a separation between the operational duties of the function from its risk management responsibilities. Consistent with global developments, Bank Negara Malaysia is in the midst of reviewing the roles and responsibilities of the Appointed Actuary with the aim of achieving a more independent and effective risk management function.

Bank Negara Malaysia has also issued a Guideline on Internal Capital Adequacy Assessment Process (ICAAP) where insurance companies are required to have sound capital management, which requires the setting of Individual Target Capital Levels based on stress testing, amongst other measures. Inevitably as a profession with deep knowledge of how insurance works, actuaries within insurance companies will be heavily involved in this capital management process. This is not inconsistent with global developments where the Solvency II directive, for example, explicitly requires the actuarial function to be more directly involved in the implementation of risk management systems of the company.

Concurrent to developments in capital standards, accounting requirements have also been undergoing unprecedented pace of change with the finalisation of the International Financial Reporting Standards for Insurance Contracts on the horizon. In this region, actuaries will be asked to play an expanded role, in particular with the unbundling of investment elements from traditional insurance contracts and the explicit valuation of options and guarantees contained therein.

### **The Opportunity for Actuaries Outside the Traditional Areas**

The actuarial profession brings a very special value proposition to our rapidly changing interdependent and interconnected world. The actuarial profession trains its members to take a hard look at reality and to objectively map the risks and opportunities that lie ahead in the medium and long term. All actuaries are taught to advise their clients to prepare in the present for uncertainties of future contingent events. Perhaps if the rigour of the actuarial profession was applied in the management of credit default swaps, this would have made a difference to the outcome of the global financial crisis. But of course it has also been argued that the crisis owed itself not to the lack of financial or technical competence but rather to an abundance of unbridled greed.

Probability theory and mathematics which are key elements of modern financial risk management may sound complex to some but are clearly bread and butter issues to the actuarial profession. And as actuaries, you are undoubtedly well aware that most of the significant financial risks do not exhibit normal behaviour, hence the more developed thinking in actuarial circles on measures that explicitly capture tail risks such as Conditional Tail Expectation instead of adopting a pure Value at Risk approach.

Actuaries are also taught to employ a control cycle approach to all your tasks which involves the development of a model or a solution followed by a continuous review of that model and the assumptions it employs. This problem solving framework is useful in many other fields of the financial sector and will ensure models and assumptions are frequently reviewed with clear accountability for variance of actual results from those expected.

This in-depth knowledge of financial risk and its management combined with a professional code of conduct and the active monitoring of compliance with this code puts the actuarial profession at an advantage in the field of risk management. However, this will entail actuaries moving out of their comfort zones and going beyond the traditional boundaries of insurance. In this regard, I would like to congratulate the profession on the creation of the Chartered Enterprise Risk Analyst (CERA) designation as an important step in the right direction.

## Conclusion

I conclude with a thought from a well known Actuary. Frank Reddington once said that "the actuary's danger may lie in too close a preoccupation with his particular techniques. His real strength lies elsewhere; in a broad training whose firm roots are in mathematics and statistics, but whose branches reach out into commerce, investments, administration and all the bustle of humanityâ€the actuary cannot foretell the future...what he can do and does is to sense the wide-ranging possibilities that the future may have in store and to make them a living part of the present where decisions are made".... Indeed it is in times like these where a profession such as yours, trained in the measurement and management of risk, must come to the fore and help to build a more resilient financial future.

With that, I would like to wish the distinguished speakers and participants of this seminar a fruitful and lively seminar. I fully expect the exchange of views to be both stimulating and informative. To all speakers and participants from abroad, I hope your stay in Kuala Lumpur will be both pleasant and memorable. Thank you.

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