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Shin Kong Life Insurance Co., Ltd Shin Kong Life Tower No. 66 Chung Hsiao West Road, Section 1 Taipei **Taiwan** 

For the attention of: Hsiung Chi Tsai, President

Dear Sirs.

Review of Assumptions for Embedded Value as at 31 December 2012 and Value of One Year's New Business of Shin Kong Life Insurance Co., Ltd

Deloitte Actuarial and Insurance Solutions (Hong Kong) Limited ("Deloitte Actuarial", or "we") have been retained by Shin Kong Life Insurance Co., Ltd ("Shin Kong Life" or "the Company") to carry out a review of and to provide an opinion on the reasonableness of the Company's assumptions used in the calculation of the Embedded Value ("EV") as at 31 December 2012 and the Value of One Year of New Business ("V1NB") written in the period of 1 January 2012 to 31 December 2012. The purpose of the publication of the EV and V1NB figures is to provide supplementary information to investors, analysts and other stakeholders.

This opinion letter ("the Opinion Letter") sets out the work carried out and findings from that work and has been prepared in accordance with the Work Order dated 18 March 2013 between Shin Kong Life and Deloitte Actuarial.

This engagement is solely with Shin Kong Life and this Opinion Letter is solely for the use of Shin Kong Life and its Directors as a body for the stated purpose only. To the fullest extent permitted by law we do not accept or assume responsibility or liability (including without limitation, those arising from negligence) to anyone other than Shin Kong Life's Directors as a body for our work in respect of this Opinion Letter or for the conclusions that we have reached.

## **Definitions**

A number of specific terms are used in this Opinion Letter. They are defined as follows:

- Embedded Value ("EV"): this is the sum of the Adjusted Net Worth and Value of In Force Business as at the valuation date. It includes no allowance for the value of future business yet to be written;
- Adjusted Net Worth ("ANW"): this represents the shareholder equity in the enterprise as at the valuation date. This is equal to the shareholder equity as reported in its Taiwan statutory balance sheet plus several adjustment items. The purpose of the adjustments is to make the Adjusted Net Worth consistent with the projection of future profits and Cost of Capital;
- Value of In Force Business ("VIF"): this is equal to the present value as at valuation date of the future statutory profits distributable to shareholder from the business in force as at the

valuation date using a risk adjusted discount rate, less the Cost of Capital associated with such business:

- Appraisal Value ("AV"): this is the sum of the Embedded Value and Value of Future New Business as at the valuation date. It represents an assessment of the economic value of the company on a going concern basis using best estimate assumptions and a discounted cash flow approach;
- Value of One Year of New Business ("V1NB"): this is equal to the present value as at the policy issue dates of the future statutory profits from the policies sold in 2012 less the Cost of Capital associated with such business;
- Value of Future New Business ("VNB"): this is equal to the present value as at the issue date of
  the future statutory profits from policies assumed to be sold in the future less the Cost of
  Capital associated with such business. One of the common calculation approaches is to multiply
  the Value of One Year of New Business by a new business multiplier. The new business
  multiplier reflects an assessment of the company's future new business volume, the profitability
  of such new business and the uncertainty in achieving such volume and profitability.
- Cost of Capital: this is defined as the amount of capital required to be held at the valuation date less the present value of future releases of such capital and after-tax earnings on the assets backing it. The level of capital required depends on the Company's internal target of capital level but is subject to the minimum statutory requirement.

This Opinion Letter does not give any opinion on the "fair market value" of any part or the whole of the Company. Actual market values are determined by investors based on a variety of information available to them and their own investment criteria.

The techniques for calculating a company's Embedded Value and the Value of One Year of New Business have been evolving over the last 15 years. The Company has used "traditional" techniques. This is a common approach in Taiwan which is consistent with the methodology used by all local domestically-owned companies which publish their Embedded Values. This method does not include an explicit allowance for the cost of options and guarantees within the business. Instead, this approach makes an implicit allowance for the time value cost of options and guarantees and other risks associated with the realisation of the projected future profits through the use of a risk adjusted discount rate.

## Scope of Review

The scope of our review is outlined as follows:

- Review of the valuation fundamentals (market value versus book value, long term or short term outlook) and the basic methodology and approach to ensure consistency with the assumptions and the methodology; and
- Review of the reasonableness of the assumptions used in the calculations, taking into
  consideration both the Company's recent experience and the experience of the Taiwanese life
  insurance market. The review covered both the economic and non-economic assumptions.

The scope of our review did not include the following aspects:

- Review of the policy data on the Company's administration systems;
  - Our review did not cover an audit of the accuracy or completeness of the policy data items and we offer no comment on the quality of the policy data used by the Company in the valuation, and readers should not assume our review verifies the data is free from error.
- Review of the actuarial models used for the calculation of the EV and V1NB;
  - Our review did not cover a review of the reasonableness of the outputs generated by the Company's actuarial models with respect to the product features, accuracy of calculations, applicable assumptions, policy data features as well as the applicable insurance regulations.

- Review or audit of the valuation of the assets or any items unless specifically stated on the Company's balance sheet;
  - We referred to the Company's audited financial statements and placed reliance on them.
- Review of the calculation of the RBC (risk based capital) of the Company as at 31 December 2012;
  - Our review did not cover an audit of the accuracy and completeness of the starting RBC figures as at 31 December 2012 as submitted by the Company to the Taiwanese regulator as well as the way that the starting RBC is projected into future periods.
- Review of the ANW except for the treatment of Available-for-Sale ("AFS") gains on AFS assets as well as unrealized gains on property prevailing as at 31 December 2012;
  - Our review did not cover a review of the ANW except for the treatment of AFS gains as well as unrealized gains on property prevailing as at 31 December 2012. The review of the above-mentioned net worth adjustments was performed to ensure that treatment of the value of those assets in the net worth is consistent with the way that returns on those assets are projected in the derivation of the portfolio return assumption.
- Any other actuarial or other valuation figures, such as an Appraisal Value, Value of Future New Business, New Business Multiplier, or any "Fair Value" or potential transaction price.
  - Only the EV and V1NB fell in the scope of our review, and we offer no opinion on any other values.

Our review was conducted in accordance with current generally accepted actuarial practices and processes for reviews of traditional Embedded Value calculations. In particular, we made reference to the methods, approach and other considerations as set out in:

- The relevant parts of Practice Guideline 199.03 of the Institute of Actuaries of Australia entitled "Economic Valuations"; and
- Professional Conduct Standards as defined by the Professional Affairs Board of the Institute and Faculty of Actuaries in the UK.

## Findings from our Review

Our findings are summarised as follows:

- With respect to the calculation methodology adopted by the Company in the calculations:
  - The chosen traditional EV methodology used by the Company has been applied in line with the generally accepted actuarial practice and relevant guidance; and
  - The methodology was in line with the purpose stated by the Company, and is consistent with a "going concern" approach.
- With respect to the assumptions used in the calculations:
  - The economic assumptions represent plausible future outcomes for expected future total returns (including the release of risk margins) and lie within a reasonable range of such plausible future outcomes;
  - The non-economic assumptions have been set with regard to relevant actual historical experience of both the Company and the industry, and the Company has provided plausible, reasoned arguments in relation to their expectations of future trends and developments for these assumptions; and
  - The Company has used a K-factor assumption of 0.48 for all future years in the projection of future RBC. Whilst the K-factor for RBC reporting as at 31 December 2012 was 0.48, the Insurance Bureau ("IB") of the Financial Supervisory Commission has not given further guidance on whether the K-factor for future RBC reporting would remain at 0.48, or would be raised to 0.50 in line with the plan announced in the past. In other words, Shin Kong Life

has taken a view in the EV calculation that the IB would continue to keep the K-factor at its current level of 0.48. We would like to highlight that, to the extent the requirement on the K-factor was changed in the future, it would have impact on the EV results.

In conclusion, we find the assumptions and approach to be reasonable for the Company and the environment in which it conducts business subject to the exceptions noted above. In addition, we find the calculation methodology to be materially in line with the approach taken by all local domestically-owned life insurers which publish similar figures in Taiwan and with the generally accepted method for their calculation.

In stating the above opinion, we draw attention to the uncertainty related to such calculations.

The calculations of EV and V1NB results necessarily make numerous assumptions with respect to economic conditions, operating conditions, taxes and other matters, many of which are not fully within the control of the Company. Although the assumptions used represent estimates which fall within a reasonable range of expectations, actual experience in the future is almost certain to vary from that assumed in the calculation of the results and any such variations may be material. Deviations from assumed experience are normal and are to be expected.

We note, and draw the attention of readers to the sensitivity of the results to assumptions, and in particular, to the assumed rate of future investment return and the risk discount rate; this is illustrated quantitatively in the Company's disclosures. A deviation from the assumed future investment return, even still within a reasonably plausible range of such assumptions, may lead to a materially different result. We note that future investment returns are subject to market factors beyond the control of the Company and hence it is not possible for the Company to fully immunise future profitability against movements in future investment returns.

Yours faithfully,

Deloitte Actuarial and Insurance Solutions (Hong Kong) Limited