Proposed establishment of a Policyholders' Protection Fund ("PPF")

In connection with the proposed initial target fund size for the Life Scheme and Non-life Scheme of $1.2 billion and $75 million respectively, and the aim to build up the initial target funds in 15 years, the Administration is requested to provide information on the actuarial calculations/assessments on the target funds and the relevant assumptions.

The actuarial model that we have adopted in supporting the calculation of the PPF and the design of its structure is based on Monte Carlo Simulation which is a commonly adopted statistical method for risk assessment and quantification in the insurance industry. It is a statistical technique whereby the distribution of the cost of the PPF is generated by a computer model that recalculates possible future outcomes over and over again, each time using different randomly selected input values e.g. possible insolvencies, different claim types and sizes. Based on the data of the insurance industry, 50,000 simulations of possible scenarios were run to generate a statistical distribution, from which the expected cost of the PPF could be determined at a variety of confidence levels[1].

2. The key assumptions and parameters underpinning the model are as follows:

- The confidence level: Benchmark confidence levels in Hong Kong (regarding the Deposit Protection Scheme) and overseas (regarding similar policyholders' protection funds) vary between 95% and 99.9%. We have adopted a 99% confidence level for the purpose of the PPF as a new scheme in Hong Kong.

- The probability of an insurer defaulting: This is based on studies and ratings from international insurance credit rating agencies. It must also be noted that the incidence of insurer default has been very rare in Hong Kong.

[1] A confidence level expresses the likelihood that the outcome will be within a specified interval, if the underlying assumptions hold true. From a statistical perspective, a 99% confidence level means that there would be a 99% chance that the initial target fund size will be adequate to cover the actual cost of the scheme in the next year.

- The ranking of the PPF vis-a-vis other creditors of the insolvent insurer: The PPF has been assumed to rank equally with other direct claims from policyholders, which is one of the recommendations of the consultation document.

- The percentage of assets recoverable in an insolvency: This has been developed by reference to international data for cases of insolvency of insurers. A base assumption of a recovery rate of 50%-90% for life insurers[2] and 40%-80% for non-life insurers has been adopted to reflect the different characteristics of life and non-life insurers.

- The lending rate (the rate at which the PPF can borrow from a third party during the liquidity gap): By reference to the average yields of 2-year / 3-year exchange fund notes since 2006, we assume this to be 3% in the base case, having considered that the current very low rates of interest would not continue indefinitely.

- The inflation rate: By reference to the inflation figures since 2006, we assume that there would be on average 2% inflation per annum.

- The industry growth rate: We assume that the Hong Kong insurance industry would grow at a low to medium rate of 5%-10%, using the premium figures since 2006 and trending to 2.5%-5% growth rate in 10 years.

- The investment return: We assume that the PPF would invest in low risk investments, yielding an investment return of 2% per annum, using the average yields of 6-month / 1-year exchange fund bills since 2006.

- The risk profile: We assume that the risk profile of the insurance industry would remain unchanged during the build-up period of the PPF.

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[2] The assets of a life insurer are subject to certain additional protection. For example, the assets representing a fund maintained by an insurer in respect of its long term business shall be applicable only for the purposes of that part of that business to which the fund relates under section 23 of the Insurance Companies Ordinance.

- The on-going running costs: We assume these to be 0.2% and 1% of the respective fund sizes for the Life Scheme and the Non-life Scheme per annum.