26 February 2021

Explanatory Note for Appointed Actuaries: Chapter 41E
Supplemental Information on the Reinvestment Yield for Reserving

On 19 December 2008 the Council of the Actuarial Society of Hong Kong ("ASHK") issued "Notice for Appointed Actuaries: Chapter 41E – Reinvestment Yield for Reserving" (the "2008 Notice"). The 2008 Notice addressed the interpretation of Chapter 41E of the Insurance Ordinance as it relates to discount rates to be used in the determination of long-term liabilities under Section 8 ("Rates of Interest").

After issuance of the 2008 Notice, the Authority sent circular letters, reference INS/TEC/13/18 V and entitled "Insurance Companies Ordinance (Cap 41) Reinvestment Yield for Reserving" to Appointed Actuaries on 5 February 2009, 18 November 2011, 12 January 2015 and 24 August 2017 in which it stated that ASHK's recommended approach may be adopted for determining the reinvestment yield in the actuarial valuation reports in respect of financial years 2008 to 2019. It is our understanding that multiple long-term insurers have in fact used it and submitted their audited reports on the basis of ASHK's recommended approach in the 2008 Notice.

On 23 March 2020 the Insurance Authority of Hong Kong (the "Authority" or "IA") issued a notice to Appointed Actuaries of long-term and composite insurers regarding "Insurance Ordinance (Cap 41) ("The Ordinance") Insurance (Determination of Long Term Liabilities) Rules (Cap 41E) Rule 8(7)(a)" (the "IA Notice"). The IA Notice refers to a proposal made by the ASHK regarding the "approach to be used by long term authorized insurers to value the yield assumed by long term insurers on investments to be made more than three years after the valuation date when determining their liabilities for solvency purposes".

Subsequently on 17 April 2020, the Council of the ASHK issued "Explanatory Note for Appointed Actuaries: Chapter 41E – Supplemental Information on the Reinvestment Yield for Reserving". The 2020 Explanatory Note provided further background on the ASHK Proposal and the rationale for it.

The purpose of this Explanatory Note is to summarize Notices, Explanatory Notes, and Circulars issued by ASHK and IA in respect of "Reinvestment yield on Reserving" and provide further explanation beyond financial year 2019.

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The 2008 Notice focused on Subsection (7)(a) of Section 8 which addresses the yield on investments to be made more than three years after the valuation date ("reinvestment yield"), and states:

> "The yield assumed, before any adjustment to take account of the effect of taxation –
> (a) on any investment to be made more than 3 years after the valuation date shall not exceed the lowest of –
>
> (i) a prudent assessment of the yield, current on the valuation date, of long-term fixed interest securities issued by the national government of the country in which currency the liabilities are denominated; or
>
> (ii) 6% per annum, increased by one quarter of the excess, if any, of the yield referred to in subparagraph (i) over 6% per annum; or
>
> (iii)7.5% per annum;"

The 2008 Notice established the principle that the wording can be interpreted as allowing the Appointed Actuary to apply judgement if he or she feels that the use of the yield at the valuation date is in some way inappropriate to the purpose of investment more than three years after the valuation date and introduced an averaging concept under which the Appointed Actuary would apply judgement in determining the reinvestment yield. In applying such judgement, the following principles were enumerated:

- The judgement should be prudent.
- The assessment of the yield to apply on investments in the future can involve a forward-looking consideration of how yields are expected to move up or down from their level at the valuation date; the yield, current on the valuation date, of long term fixed interest securities issued by the national government of the country in which currency the liabilities are denominated ("Yield at Valuation Date") is the starting point for this consideration and should not be overlooked.
- Relevant economic and other external data at and prior to the valuation date should be considered in judging any movement away from yields at the valuation date; such data might for example include government bond yields, yields on long-dated interest rate swaps, spreads on long-dated high-grade corporate bonds, observed and expected volatility, and relative trading volumes and market liquidity.
- Any chosen method for deriving the final reinvestment yield should be actuarially sound and should remain robust under changing future interest rate conditions; in particular, if interest rates remain low then the reinvestment yield assumed should trend lower, and if interest rates rise then the method should not require substantial adjustment.

The 2008 Notice illustrated a sample approach (the "Sample Approach" referred to below) that was based on a formula for determining the reinvestment yield of the following form:

Reinvestment Yield = X% x {Yield at Valuation Date} + Y% x {forward-looking yield},
where X% + Y% = 100%

Sample parameters for X and Y (50%) as well as a sample approach to the forward-looking yield (based on a three-year historical average) were also given. It was made clear that these were examples subject to the judgement of the Appointed Actuary. The 2008 Notice was written and circulated in a short timeframe at a time of significant change in financial markets.

In February and March of 2020, as a result of the uncertainty caused by the Covid-19 pandemic, interest rates dropped to unprecedented levels and became extremely volatile, putting pressure on companies' balance sheets under the liability valuation framework prescribed in Cap 41E which was not designed for such extreme market conditions. In this environment the ASHK formed a "Low Interest Rate Working Group" (LIRWG) consisting of senior actuaries and consultants from the Hong Kong life insurance industry to explore ways to address the situation.

After discussion, the LIRWG decided that it would recommend that the example in the 2008 Notice be revised to change X to 20% and Y to 80%, with the historical average being calculated over five years rather than three. It was felt that the lower weight applied to the current yield was justified in the light of the circumstances that arose in early March 2020, as the wider effects of Covid-19 on the global economy started to become apparent, namely a sudden drop in US Treasury yields to unprecedented levels caused, at least in part, by dislocations in financial markets. In addition, the 80% weighting on the historical average combined with extending the averaging period to five years would lend stability to period-to-period valuations. The LIRWG also took notice of the guidance provided by the International Association of Insurance Supervisors contained in Insurance Core Principle (ICP) 14, *Valuation*, at ICP 14.3.7:

> "In some circumstances, a market price may not necessarily provide a decision useful basis for a valuation. If the reference market is dysfunctional or anomalous in its operation, a more reliable method of determining value **based on more normal conditions** may be appropriate. Such circumstances may occur, for example, if there is a high cost in making actual trades, trading is thin, independent pricing sources are not available or are limited, or the market is subject to distorting influences."

The recommendation of the LIRWG was unanimously endorsed by its members and subsequently by the ASHK Council. A "Draft Notice" to Appointed Actuaries, similar to the 2008 Notice, was shared with the IA for comment on 10 March 2020.

Consequently, on 23 March 2020 the IA issued a notice to Appointed Actuaries of long-term and composite insurers regarding “Insurance Ordinance (Cap 41) (“The Ordinance”) Insurance (Determination of Long Term Liabilities) Rules (Cap 41E) Rule 8(7)(a)” (the “IA Notice”). In this IA Notice, the IA considered the proposal in the Draft Notice which is known as the “Proposed Formula” and explained the process in which each authorized insurer may apply to the IA on a case-by-case basis for adopting the Proposed Formula.

In light of the ongoing volatility in global capital markets and continuation of the low interest rate environment, the Life Committee has recently reviewed the original sample approach on the determination of reinvestment yield in the 2008 Notice (the “Sample Approach”) and has concluded the Sample Approach continues to remain appropriate notwithstanding the fact that it provides less stability than the Proposed Formula. This is because this Sample Approach has been widely adopted for over a decade. The ASHK believes the choice of parameters to be adopted remains to be the judgement of the Appointed Actuary based on the principles laid out in the 2008 Notice. Furthermore, the parameters should be applied consistently. Any modification should be supported by prudent assessment without compromising the financial soundness of the insurer. If the Sample Approach has been consistently applied by the Appointed Actuary who considers it to remain appropriate, the Appointed Actuary is not required to adopt the Proposed Formula and may continue to apply the Sample Approach.

Additionally, it is noted that:

- Appointed Actuaries remain bound by their statutory duties in ensuring financial soundness of the insurers for which they serve and should discharge such statutory duties in accordance with Professional Standard 1.
- Chapter 41E sets down the conditions for a minimum valuation basis and that Appointed Actuaries still need to consider whether or not the valuation basis is adequate and suitable in addition to whether or not minimum requirements are met.
- Appointed Actuaries shall include adequate disclosure in the abstract of the actuary's report prescribed in Section (18) of the Insurance Ordinance regarding the appropriateness of the approach and the parameters chosen for the valuation.
- In the current volatile environment, it is advisable that Appointed Actuaries apply additional rigour in documenting the reasons for choosing the assumption for reinvestment rates.
- A prerequisite for the use of the Sample Approach is that the Appointed Actuary must consider if the approach remains appropriate. When the Sample Approach is used by an insurer, the IA has informed that the insurer is expected to document justification as to why the Sample Approach is appropriate and the parameters in support of the choice of method. As such, when the Sample Approach is used, the Appointed Actuary shall consider its appropriateness and properly document the justification accordingly.
- Any Appointed Actuary who wish to adopt the Proposed Formula is reminded to apply to the IA for permission per the IA Notice.

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