



ACTUARIAL SOCIETY
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Actuarial Society of Hong Kong's Newsletter

Hong Kong Actuaries

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Council & Committee Updates

- Formation of the ASHK AGNs Review (Appointed Actuaries) taskforce
- ASHK Innovation Conference 2022
- Joint Regional Seminar 2022

Feature Articles

- HKRBC
 - Pillar 3: A closer look at the Pillar 3 regulatory returns and its implications for insurers
 - The Landscape of Asset Liability Management under the HKRBC basis
- Actuary Interview

Call for Articles or Views for the next issue of Newsletter!

While all articles are welcome, we would especially like to receive articles for the Feature Articles and Knowledge Sharing sections. If you have written any inspiring articles or have read any interesting articles from other actuarial organisation(s), please feel free to let us know. We will try to reprint them in our newsletter. Welcome to email your articles or views at info@actuaries.org.hk.

Hong Kong Risk Based Capital





Editorial

Dear Readers,

Welcome to the second ASHK newsletter for 2022.

On behalf of the Membership and Communication Committee, it is with great pride and sincere privilege that I am writing this message to present the second issue of the 2022 ASHK Newsletter. Launching this new edition would not have been possible without the great and much appreciated contributions from our members.

In this issue, we are featuring the hottest topic of the Risk Based Capital (RBC) in Hong Kong. We are pleased to share with you several articles on this theme.

Starting from this issue of the newsletter, we will conduct a series of interviews with the well-known actuaries in Hong Kong. We will talk about their actuarial journey and discover their “secrets of success”. They may not be able to provide career coaching to junior actuaries individually, but hopefully their stories and experience will bring inspiration and career aspiration to the wider group. In this issue, it is our great honour to interview Sai-Cheong Foong to share his journey of being a successful actuary over 29 years.

Finally, I also encourage you to attend the coming events: ASHK Innovation Conference (30-31 Aug), Joint Regional Seminar 2022 (20-29 Sep), PDC Seminar (Oct) and IFRS Seminar (Oct) – all our events are nicely summarized with the latest updates in the ASHK website. We intend to bring the experts to you so that you can benefit from their insights while fulfilling your CPD requirement whether virtually, hybrid or in-person as circumstances permit.

Happy reading!

Best Regards,
Timothy Wong
EDITOR



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ASHK is pleased to support the following events:

- [Hong Kong Undergraduate Financial Planners of The Year Award 2022](#) – hosted by Society of Registered Financial Planners (HKRFP)
- [IFPHK Financial Education Leadership Awards 2022](#) – hosted by The Institute of Financial Planners of Hong Kong (IFPHK)



Life Committee

- Chris Hancorn and Dicky Lam

Formation of the ASHK AGNs Review (Appointed Actuaries) taskforce

In view of the legislation for the Risk-based Capital Regime is expected to be implemented in early 2024, the ASHK Professional Standards for Appointed Actuaries (PS1) and the Actuarial Guidance Notes (AGN) need to be in line with the new legislation. The Life Committee is glad to announce that a taskforce has been formed to work on this important review work. We would like welcome and thank the task force members for their support.

Clement BONNET, FASHK	Principal & Consulting Actuary, Milliman
Erica CHAN, FASHK	Consulting Actuary, Milliman
Steve CHEUNG, FASHK	Partner, EY
Rachel CHU, FASHK	Corporate Actuary, CPIC Life
Dhiran DOOKHI	Director, Deloitte
Jiang Bin LAI, FASHK	Chief Actuary, Hang Seng Insurance Company Ltd
Julian MAN, FASHK	Consulting Actuary, Milliman
Christopher Ka Ho TAM	Director, Deloitte
Christine WU, FASHK	Director, Willis Towers Watson

Health Committee

- Kevin Lee

ASHK Health Virtual Talk

The first Health Virtual Talk in 2022 was held successfully on 23 June 2022. We're glad to invite Ms. Orchis Li to share Gen Re's 8th Dread Disease Survey in Asia and the experience in Hong Kong from 2015-2019 with our participants. With the rapid growth of the Dread Disease portfolio in Hong Kong, we are able to gain more insights from the data, including product and new business information, claims information as well as trends in major conditions.

Actuarial Innovation Committee

- Nora Li

ASHK Innovation Conference 2022

Technology innovation continues to evolve the role of actuaries. ASHK Innovation Committee is proud to introduce the 2nd **ASHK Innovation Conference**, to be held virtually on 30 and 31 August 2022 (Tuesday and Wednesday) morning.

The Conference aims to help actuaries stay abreast of such development. By promoting actuarial innovations and actionable insights, this help actuaries create better solutions which then the public can benefit as end users. We are honoured to gather key actuarial innovation experts and industry practitioners who have both local and Asia Pacific focuses to speak to our Conference theme of ‘**Act, Innovate, Create**’.

Conference Highlights

The Conference agenda will cover the hottest topics and latest trends of actuarial Innovation such as How to create truly digitally native life insurance solutions, Innovation Exploration of Intelligent Operations in Life Insurance, Digital Asset Insurance, Application of InsurTech to Automobile Insurance etc..

How to create tomorrow’s actuaries?

In today’s world, the innovative use of technology plays a significant impact on insurance as well as in the work that actuaries perform. We have invited speakers from the insurance sector, a professional firm, and a cross-sectoral advisory body to share with us in a panel discussion: Create Tomorrow’s Actuaries. Sean Deehan, Hong Kong Market Leader from WTW will moderate the panel. He will be joined by Chris Hancorn, the Group Chief Actuary of AIA Group, Abhishek Kumar, the Head of Actuarial at KPMG, Lee Sarkin, a Chief Analytics Officer at Munich Re and Rocky Tung, Head of Policy Research at Financial Services Development Council.

How should blockchain be used for actuaries?

“Blockchain” has been one of the biggest buzzwords in recent years, however, how could it be applied in the actuarial profession? We have invited experts in blockchain and bigwigs from medical insurance to share in another panel; Practical Application of Blockchain for Actuaries. Jonathan Cheung, the Strategy Director at HKbitEX will moderate the panel. He will be joined by Annette King, a Co-Founder and Chair at Galileo Platforms in Hong Kong, Raymond Lai, an AI & Risks Management Expert at Nicolas Actuarial Solution, William Yeung, the Co-founder and CEO of MediConCen and Allan Cohen, CEO and Managing Director, Pelican Ventures.

There are many more inspiring topics to highlight. This Conference will definitely be a great opportunity for you to connect to the region’s InsurTech and innovation developments. We look forward to seeing you at the conference!



Curriculum Exam Taskforce & Professional Development Committee – Patrick Au

ASHK Examination 2022 Online Information Session

Mr Patrick Au, Chairperson of the Professional Development Committee and Mr Wilson Wu, member of the Curriculum & Examination Taskforce hosted the second ASHK Exam online information session on 4 July. We also invited two successful candidates from the ASHK Exam 2021, Mr Terry Chen, Manager of Actuarial Services from PwC and Ms Maggie Wong, Senior Actuarial Manager from SunLife, to share their experience regarding the examination. 28 ASHK members have registered for the ASHK Exam on 19 August.

Here is a recap of Terry's sharing:

ASHK: Which area are you currently working in?

TC: I currently work in the Life Insurance Consulting field for PwC. I mainly focus on audits, reserve reporting, capital reporting, model validation, process modernisation, and strategy consulting.



ASHK: How did the ASHK Examination benefits you?

TC: The ASHK Exam is well directed to the Hong Kong market. The Exam covers almost all the insurance regulations. In my work, I have only utilised a few of the regulations but through the ASHK Exam, I could have the chance to see the entire insurance regulatory landscape for the HK Insurance market.

ASHK: Can you share with us how you managed your time between study and work?

TC: The exam is in open book format, so the key study tip is to get familiarised with the location of the material instead of memorising the content. So, it is not too time-consuming to prepare for the exam. Also, as I have been applying some of the study content in my daily job, I have just spent about 20 to 30 hours in total preparing for the exam.

ASHK: What examination resources are available to you?

TC: Most of the resources can be found in the ASHK Exam syllabus, Study Guide and its practice questions. The syllabus includes almost all the insurance regulations within the HK market along with some relevant additional references. The practical questions are also similar to the exam question styles for us to get well prepared.

ASHK: Any tips or strategies to prepare for your exam?

TC: I think the ideal study method is to read through the ASHK Exam syllabus and curriculum and get familiar with the context of each regulation and overall. Studying for the ASHK exam is a pretty good opportunity to understand the insurance regulations in Hong Kong systematically. Most importantly, it is a career credit once you have passed the ASHK Exam as some employers are now adopting the ASHK qualification in their job recruitment. So, it's definitely a good choice to attempt for the ASHK Exam.

International Actuarial Colloquium Organising Committee &
External Communications Committee - Billy Wong

Joint Regional Seminar 2022

The Joint Regional Seminar (JRS) is an annual Life and Health Insurance event co-organized by the Institute and Faculty of Actuaries and Actuaries Institute Australia with the support of the local actuarial societies in the region. It is designed to assist actuaries and other professionals to gain insights across the APAC markets and support their continuous professional development (CPD) requirements.

The JRS will give APAC practitioners the opportunity to gather, gain insights and discuss the theme amongst the leading experts, fellow actuaries and senior executives in the region. To sustain in the new insurance ecosystem, the profession needs to be versatile and proficient in all business aspects. Hence, the theme this year is “Sustainability - the ecosystem for the Insurance Industry”.

A virtual half-day Regional Programme will be on 20 September for all participants. The schedule of Local Programme (online/ in-person) hosted by the local associations is as follows:

Vietnam	20 Sep
Hong Kong	21 Sep
Taipei	22 Sep
Kuala Lumpur	27 Sep
Jakarta	28 Sep
Bangkok	29 Sep

Hong Kong Programme registration
is now open! [CLICK HERE](#)



**SUSTAINABILITY - THE ECOSYSTEM FOR
THE INSURANCE INDUSTRY**



HKRBC Pillar 3: A closer look at the Pillar 3 regulatory returns and its implications for insurers

1. Introduction

As part of the Hong Kong risk-based capital (HKRBC) regime development, the Insurance Authority (IA) has started the development of the Pillar 3 regulatory returns from early 2021, taking into account the current regulatory returns, the latest accounting standards including IFRS 17, regulatory returns in other jurisdictions and the underlying monitoring supervisory purpose.

Two industry townhall meetings have been held by the IA to share the proposed regulatory returns. In the second townhall meeting held on 8 Jun 2022, the IA has shared its responses to industry comments on the consultation questions, transitional arrangement, signatory requirements as well as the survey on IT-related topics. It has also shared the consolidated regulatory returns.

There is significant amount of information required for Pillar 3. This article provides a summary of the regulatory returns and the implications to insurers.

2. What is required for Pillar 3 reporting?

With reference to the recent townhall discussion, the following items need to be submitted to the IA in the upcoming HKRBC regime:

- Quarterly returns (Q1 to Q4) with signoff for specific returns
- Annual returns (separate from Q4 returns) with signoff for specific returns
- Annual audit opinion
- Actuarial report

2.1 Quarterly returns vs. annual returns

Quarterly returns and annual returns have different requirements. Annual returns provide additional information to quarterly returns for the IA's comprehensive solvency monitoring.

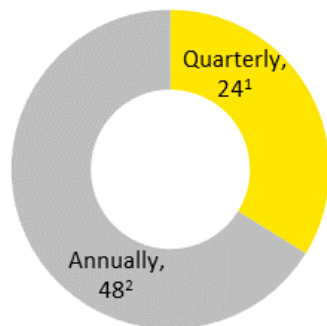
Quarterly returns cover mainly economic balance sheet (EBS), asset breakdown, reserve breakdown, summary of capital requirements and capital resources.

Annual returns cover mainly the analysis of movement of the excess of assets over liabilities, additional asset and liability related information (e.g., credit rating, related parties, repo, structured products, financial liabilities), detailed matching adjustment (MA) information (e.g., portfolio information, MA asset data, MA liability data, MA cashflow), detailed capital requirement information (e.g., by-fund capital requirement, loss absorbing capacity from future discretionary benefits, EBS under base and market risk scenarios, life insurance risk results by fund and line of business level as well as by homogenous risk group (HRG) level,

counterparty default risk and operational risk) and other supplementary information (e.g., concentration, reinsurance, long term products and liquidity).

Including the returns that may be submitted on ad hoc or request basis, the diagram below compares the number of returns required for life and general insurance (GI) insurers respectively.

No. of returns required for life insurers



No. of returns required for GI insurers

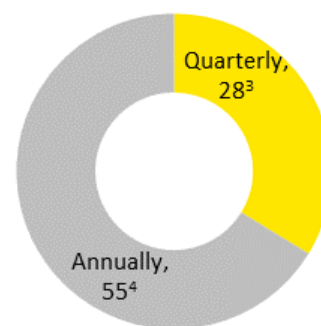


Diagram 1 Number of returns required for life and GI insurers

Notes:

1. Including 2 returns that are submitted on ad hoc or request basis for both life direct insurers and reinsurers
 - a. Ad hoc basis - CA.R.2A Notification of issuance
 - b. Request basis - S.LT.Prod.3 Product Stat
2. Including 6 returns that are submitted on ad hoc or request basis, 1 return that is optional for the first year of HKRBC implementation and 1 return on MA yield curves
 - a. Ad hoc basis for both life direct insurers and reinsurers - CA.R.2A Notification of issuance
 - b. Request basis for both life direct insurers and reinsurers - (i) F.A.7A RP Transaction, (ii) CA.P.LT.3 Product (same as Quarterly request basis), (iii) CA.P.LT.4 HRGvsProduct
 - c. On regular basis for life direct insurers but on request basis for life reinsurers: (i) S.LQ.1 Liquidity (Exp), (ii) S.LQ.2 Liquidity (CF)
 - d. Optional for the first year of HKRBC implementation for both life direct insurers and reinsurers - F.3 AOM
 - e. The return on MA yield curves for both life direct insurers and reinsurers - F.LT.MA.X.6 MA Yield Curve
3. Including 2 returns that are submitted on ad hoc or request basis for both GI direct insurers and reinsurers
 - a. Ad hoc basis - CA.R.2A Notification of issuance
 - b. Request basis - B.G.TR.4.XYZ00 Claims_Cat
4. Including 3 returns that are submitted on ad hoc or request basis, 1 return that is optional for the first year of HKRBC implementation, 1 formula-driven return on diversification benefits, and returns that are applicable to GI direct insurers only
 - a. Ad hoc basis for both GI direct insurers and reinsurers - CA.R.2A Notification of issuance
 - b. Request basis - (i) F.A.7A RP Transaction for both GI direct insurers and reinsurers, (ii) B.G.TR.3 Claims_YoY for GI direct insurers only
 - c. Optional for the first year of HKRBC implementation for both GI direct insurers and reinsurers - F.3 AOM
 - d. The return on diversification benefits for both GI direct insurers and reinsurers - CA.P.G.11 Diversification
 - e. Returns that are applicable to GI direct insurers only – (i) CA.P.G.8 MMCAT_NonSystemic, (ii) B.G.TR.3 Claims_YoY (submitted on request basis, refer to note 4b), (iii) B.G.R.3 UWchannel

Insurers should note the specific audit and signoff requirements for the information required under Pillar 3. Tables 1-3 below summarise these requirements by quarterly and annual returns for life and GI insurers respectively.

Table 1 Quarterly/ Annual returns required for both life and GI insurers

For both Life & GI [number of returns]	Audit & Signoff	Audit only	Sign off only	No need for audit or sign off
Quarterly [15]		[12] F.1 EBS F.A.1 Property F.A.2 Equity F.A.3 Fixed income F.A.4 Derivatives F.A.5 Cash and Deposits	F.A.6 CIS F.A.6A CIS of CIS CA.1 CA Summary CA.R.1 CB composition CA.R.2 Feature of instruments CA.P.1.Q Summary NetFDB	[3] F.1A Commentary on EBS CA.1A Commentary on CA CA.R.2A Notification of issuance ^{1,2}
Annually [27]	[1] F.3 AOM ³	[16] F.A.3A Credit Rating ⁴ F.A.7 Related parties F.A.7A RP Transaction ⁵ F.A.8 Repo F.A.9 Structured Products F.L.1 Financial liabilities CA.P.1.A Summary NetFDB CA.P.M.1 EBS base	CA.P.M.2 EBS IRUp CA.P.M.3 EBS IRDown CA.P.M.4 EBS CS CA.P.M.5 EBS EQ CA.P.M.6 EBS PR CA.P.M.7 CCY CA.P.D Default CA.P.O Op	[10] F.0 Entity Scope F.1B EBS vs Fin Stat F.O.1 OBS or contingent liab CA.R.2A Notification of issuance ¹ S.RI.1 RIPrem S.RI.2 Fac S.RI.3.XXX Treaty S.CONC.1 Sector S.CONC.2 XBorder S.CONC.3 LE

Notes:

1. This return is submitted on ad hoc basis.
2. This return is applicable to both quarterly and annual submissions.
3. The submission of this return is optional for the first year of HKRBC implementation. This return is audited on request basis. For life insurers, sign off is needed for this return.
4. This return is audited on request basis.
5. This return is both submitted and audited on request basis.

Table 2 Quarterly/ Annual returns required for life insurers only

Life only [number of returns]	Audit & Signoff	Audit only	Sign off only	No need for audit or sign off
Quarterly [9]	[6] F.2 EBS by LT Portfolios F.LT.1.1 LT CE Summary F.LT.4 ClaimLiab_LT_A&H F.LT.5 PL_LT_A&H F.LT.5A PL_Recog_LT_A&H F.LT.5B PL_notRecog_LT_A&H		[2] F.LT.1.2 LT CE Supp F.LT.3 TVOG	[1] S.LT.Prod.3 Product Stat ¹
Annually [21]	[6] F.LT.2 LT MOCE F.LT.MA.X.1 Portfolio info F.LT.MA.X.2 MA Asset Data F.LT.MA.X.3 MA Liability Data F.LT.MA.X.4 MA Cashflow F.LT.MA.X.5 MA Result	[6] CA.P.2 Summary GrossFDB CA.P.3 LAC FDB CA.P.LT.1 LOB CA.P.LT.2 HRG CA.P.LT.5 P&R_LT_A&H B.FMA Fund Movement		[9] F.LT.MA.X.6 MA Yield Curve ² CA.P.LT.3 Product ³ CA.P.LT.4 HRGvsProduct ³ S.LT.Prod.1 Product Update S.LT.Prod.2 Product Status S.LT.Prod.3 Product Stat S.LT.Prod.4 Crediting Rates S.LQ.1 Liquidity (Exp) ⁴ S.LQ.2 Liquidity (CF) ⁴

Notes:

1. This return is submitted on request basis in quarterly submissions. However, it is a regular return in annual submissions.
2. This return is formula driven and no data collection is required in this return, assumed to be submitted together with F.LT.MA.X.1-5.
3. This return is submitted on request basis.
4. This return is a regular return for direct insurers but is submitted on request basis for reinsurers.

Table 3 Quarterly/ Annual returns required for GI insurers only

GI only [number of returns]	Audit & Signoff	Audit only		Sign off only	No need for audit or sign off
Quarterly [13]	[4] F.G.1 ClaimLiab F.G.2 PL F.G.2A PL_Recog F.G.2B PL_notRecog	[7] B.G.R.1 GI Results (Total) B.G.R.1A GI Results (AY) B.G.R.1B GI Results (UY) B.G.R.4 Motor	B.G.R.4B Motor Exposure B.G.R.5 EC B.G.R.5B EC Exposure		[2] B.G.TR.4.XYZ00 Claims_Cat ¹ B.G.R.2 Region
Annually [28]		[16] CA.P.G.1 ResRisk CA.P.G.2 PremRisk CA.P.G.3 P&R_RIMitigation CA.P.G.4 P&R_GeoDiv CA.P.G.5 NatCat_OutwardRI CA.P.G.6 NatCat_Exposure ² CA.P.G.7 NatCat_Factor ² CA.P.G.7B NatCat_Own_WSEQ ²	CA.P.G.8 MMCAT_NonSystemic ³ CA.P.G.9 MMCAT_Systemic CA.P.G.10 CollateralCheck B.G.TR.1.00.00XYZ Trian- gle_Gross B.G.TR.2.00.00XYZ Trian- gle_Net B.G.R.6 Marine Statutory Biz S.G.LAR.1 Local Asset Req S.G.LAR.3 Local Assets Listing		[12] CA.P.G.7A NatCat_Own_Scope CA.P.G.7C NatCat_Own_Other CA.P.G.7D NatCat_Own_Details CA.P.G.7E NatCat_Own_YoYChange CA.P.G.11 Diversification ⁴ B.G.TR.3 Claims_YoY ⁵ B.G.R.3 UWchannel ³ B.G.R.4A Motor Claims B.G.R.5A EC Claims B.G.R.5C EC SIR S.G.LAR.2 LAR Diversification S.G.E ExpoSurvey

Notes:

1. This return is submitted on request basis.
2. The audit is on items impacting prescribed capital requirement (PCR) only.
3. This return is applicable to GI direct insurers only.
4. This return is formula driven and no manual data input is required in this return, assumed to be submitted together with the CA.P.G returns.
5. This return is applicable to GI direct insurers only and it is submitted on request basis.

2.2. Signatory requirement

Insurers are required to have signoff from (1) Chief Executives and (2) Key Person in Financial Control Function on the regulatory returns. Insurers can also have the Board to sign off.

2.3 Audit

Insurers should note the audit requirements after HKRBC becomes effective. For the annual audit scope, around 40% of the returns (38% for life insurers and 41% for GI insurers respectively, including returns that will be submitted or audited on request basis) are Q4 quarterly returns, and the rest comes from the annual returns. Insurers should plan ahead for the HKRBC production and review timeline especially the timeline for Q4 production, respective internal review and external audit.

2.4 Actuarial Report

Certification by the Appointed Actuary (for life business) or the Certifying Actuary (for GI business) on returns. The IA has indicated that enhancement to the actuarial report will be further developed.

3. What’s the submission timeline?

After the effective date of HKRBC regime, insurers have 6 weeks to submit the quarterly returns and 4 months to submit the annual returns and audit opinion. The IA has also proposed a transition period of 2 years for the insurers to get better prepared on the new Pillar 3 requirements. During the transition period, insurers can submit the quarterly returns in 8 weeks and the annual return and audit opinion in 6 months.

The table below summarises the submission timeline during and after the transition period.

Table 4 Summary of the submission timeline during and after the transition period

Return	Transition arrangement – 2024 & 2025	From 2026 onwards
Quarterly (Q1 to Q4)	8 weeks	6 weeks
Annual returns (separate from Q4)	6 months	4 months
Annual audit opinion	6 months	4 months
Actuarial report	6 months (IA may require advance submission)	4 months

It is worth noting that the ORSA report is also in scope of the transitional arrangement. During the transition period in 2024 and 2025 after HKRBC becomes effective, the submission timeline for the ORSA report is still within 6 months after the year end, as opposed to 4 months as mentioned in GL21.

4. What are the next steps?

HKRBC requirements have profound impacts on HK insurers including the financial position, the reporting processes and business strategies. The efforts and preparation time needed under this new era should not be under-estimated. Comparing the Pillar 3 regulatory returns with the quantitative impact study (QIS) templates, Pillar 3 regulatory returns include additional information on:

- Analysis of movement of the excess of assets over liabilities
- Commentary on EBS
- Commentary of capital requirements and capital base
- Related parties and related party transactions
- Information on repurchase and reverse repurchase agreements, structure products and financial liabilities
- LT fund movement analysis
- Facultative reinsurance information
- Information for concentration risks
- LT product information
- Liquidity statistics

This means insurers have to refine their HKRBC reporting process to produce the above information at the required granularity level, which was not required during previous QIS.

Insurers should also take note the future target operating model for the HKRBC production, including the linkage with the financial reporting process under IFRS 17, asset system design, liability model design, resource planning and allocation, etc. With both Pillar 1 and 3 requirements share by the IA now, a number of

insurers have started the implementation project to move towards the HKRBC regime, including the set up of project team, a thorough gap analysis to fulfil the reporting requirements and meet the submission timeline, etc. The outcome of the gap analysis should enable insurers to identify and prioritise their implementation initiatives. For example, for CIS full look-through, in case the information as at valuation date is not timely available for HKRBC calculation, usage of information not earlier than 1 month before the valuation date is allowed, which may be different from insurers' current practice where information as of prior quarter end may be used. Besides the minimal compliance for the HKRBC reporting, insurers may need to consider process streamline and reporting tool automation to cope with the various reporting needs at the beginning of the HKRBC implementation journey.

The views reflected in this article are the views of the authors and do not necessarily reflect the views of the global EY organization or its member firms.

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The Landscape of Asset Liability Management under the HKRBC basis

1. Introduction and background

On 28th December 2021, Hong Kong’s Insurance Authority (IA) released a circular to allow long-term business insurers to early adopt Hong Kong Risk-based Capital Regime (HK RBC) upon IA’s approval.

While the introduction of HK RBC has increased the capital requirement significantly as well as presenting much operational challenge to all long-term business insurers, there is also benefit and opportunities from financial and risk management perspectives for insurers that have implemented a comprehensive and sound Asset Liability Management practice (ALM).



2. Importance of ALM under HK RBC

Currently, most of the insurers are managing their business based on the capital framework defined in the Hong Kong Insurance Ordinance (HKIO), which is usually called as Solvency I basis, that the capital requirement is heavily relying on the reserve and net amount at risk level, but less related to the invested asset that is used to support the liability portfolio.

	HKIO	HK RBC
Capital Requirement	Capital requirement is factor-based, which is generally 4% of reserves and 0.3% of the sum-at-risk, thus irrelevant with insurers’ risk profile.	Capital requirement is determined according to the risk profile of the insurers’ assets and liabilities, consisting of 5 categories (market risk, life insurance risk, general insurance risk, counterparty default risk and operation risk), aiming to cover the potential loss under 1-in-200 scenario within one year.
Reserving Methodology	Net Level Premium Approach (on guaranteed benefits only), plus allowance for future bonus payments expected to be paid in the next 12 months for participating business. Valuation assumptions include prudence margins for adverse deviation.	Discounted present value of future guaranteed and non-guaranteed cash flows based on best estimate assumptions (Gross Premium Valuation Approach) + margin to reflect the non-hedgeable risks of the liability cash flows
Liability Flooring	Guaranteed cash value floor and no negative reserve allowed on per policy basis	None
Stochastic Valuation on Time Value of Options and Guarantees (TVOG)	No	Yes (for material options and guarantees)
Liability Discount Rate	Flat valuation discount rate (VIR), blended by historical average risk-free yield and 97.5% of aggregated portfolio yield adjusted for risk	Risk-free curve plus parallel adjustment named matching adjustment (MA). MA is based on risk-adjusted spread and the level of asset liability matching.

Under the current HKIO basis, investment risks taken are not fully captured in the capital requirement given that the required capital is mainly driven by the reserve level, while the investment strategies of insurers were typically more yield-driven to enhance the VIR and less conscious on the underlying risks, i.e. whether the investment is suitable for the business from economic perspective.

Based on the latest HK RBC requirement, prescribed capital requirement consists of 5 different categories, covering market risk, insurance risk and etc. Stress level for each of the market risk varies by asset category, or by rating and tenor for fixed-income assets, reflecting the underlying risk of the asset investment. Furthermore, it also takes asset and liability interactions (i.e. policyholder risk sharing, management actions, etc.) into consideration in the required capital calculation.

Based on our market benchmarking, market risk is the major risk for most of the insurers, accounting for more than half of total capital requirement. Typically, there is a significant interest rate mismatch risk in the participating (Par) business, due to the asset-liability duration mismatch, originated from very long-term guaranteed liabilities and limited availability of over 30-year long-term assets. The interest rate mismatch risk could be a key risk to sustainability of Par fund if it is not managed properly. Moreover, insurers who

largely invest in overseas markets might need to engage in currency hedging instrument to reduce currency mismatch risk charge induced from the overseas long term bond investment.

Investment risks (i.e., credit spread risk, equity risk and property risk) are taken actively by insurers to generate risk premium. To deploy the capital and generate risk premium more efficiently, insurers should consider the trade-off of returns versus capital consumption to avoid investing in capital-inefficient asset classes.

After transiting to HK RBC, “mark-to-market” economic balance sheet will lead to a more volatile balance sheet to market conditions, ALM strategies will become crucial drivers to balance sheet management. To manage the balance sheet volatility and enhance capital efficiency, insurers will need to minimize ALM mismatch risks and optimize investment risks to assets with better risk-adjusted return.

ALM Considerations under HK RBC	Impacts to Investment Strategies
Hold required capital according to the level of ALM mismatches, yet ALM mismatch risks (i.e. interest rate risk and currency risk) are typically not rewarded.	Shift to liability-driven investment strategies, aiming to eliminate unrewarded ALM mismatches. We foresee insurers will make greater use of derivatives.
Hold required capital for investment risks according to the level of risks taken.	Insurers have to be conscious of the cost of investment to ensure capital is deployed efficiently to better rewarded risks.
Liability discount rate under HK RBC is designed to incentivize better ALM practice and fund segmentation.	Insurers have to utilize the matching adjustment of liability discount rate by allocating the right assets in the right liability buckets.

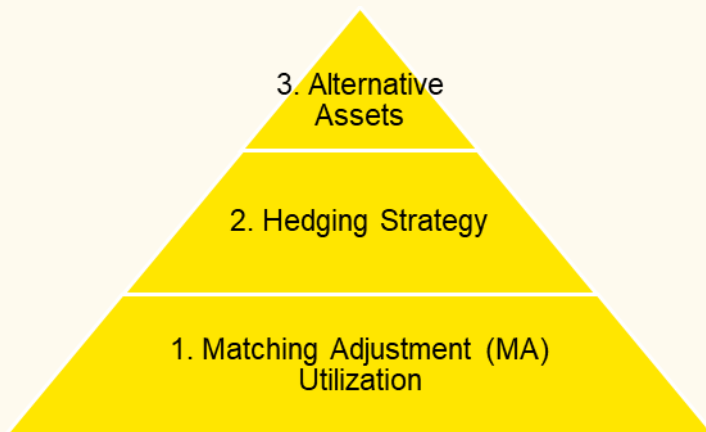
3. ALM Strategies under HK RBC

A sound ALM strategies improves the balance sheet resilience, allows capital to be deployed more efficiently and enhances policyholder and shareholder values, e.g. improve product competitiveness, increase shareholder’s return on capital or greater flexibility of remittance, etc., depending on company’s strategic priorities and risk appetite.

mismatch risks via derivatives overlay to improve the capital position, releasing risk buffer and capital to invest more in alternative assets to enhance risk-adjusted returns.

In recent years, there has been an increasing attention for insurers to allocate more to derivatives and alternative assets for risk mitigation and yield enhancement purpose. Insurers can improve capital efficiency by managing their strategic asset allocations (SAA) to utilize the matching adjustment, mitigating the interest rate and currency

Improve capital efficiency and enhance values



- ⇒ Enhance risk-adjusted returns
- ⇒ Add diversification to portfolio and resilience to market downturns
- ⇒ Unlock capital that have been allocated to unrewarded risks
- ⇒ Improve balance sheet stability to release risk buffer to better rewarded risks
- ⇒ Utilize MA to enhance capital position

Levers	How can these levers add values?
Matching Adjustment Utilization	Lengthen the fixed income spread duration to better match duration of liabilities, enhancing MA to improve capital efficiency of credit risk taken. Unlock excessive asset from MA portfolio to allow surplus assets to invest for higher return-on-capital or implement strategies that meet insurers’ corporate strategic planning subject to risk appetite and direction of corporate strategy.
Hedging Strategy Implementation	Effective use of hedging strategy helps stabilizing the solvency and releasing the capital requirement from mismatch risks which are not rewarded, increasing insurers’ headroom of allocation of assets with attractive risk-adjusted returns (e.g. alternative assets).
Alternative Investment	Alternative assets, such as real estate and private assets (private credit and private equity), add illiquidity premium to enhance the return-on-capital and risk-adjusted return. Alternative assets can diversify the portfolio given lower correlation to other assets in the balance sheet. Some alternative assets, such as private credit, historically demonstrate a better resilience than listed equities during market downturns.

3.1 Matching Adjustment

affected by the changes in the values of these assets that are not related to defaults and downgrades.

3.1.1 Components of Matching Adjustment

Liability discount rate under long-term (LT) business composes of risk-free yield curve and a parallel adjustment named matching adjustment. MA is applicable to all long-term liabilities backed by fixed income assets, except those with negative reserves (e.g. yearly renewable non-par products).

MA consists of three components, namely adjusted spread, constant prescribed spread and long-term adjustment (LTA).

The purpose of MA is to allow insurers with satisfactory asset and liability management (ALM) practice to earn the risk-adjusted yield and be less

Component	Originated from	HK RBC Treatment
Adjusted Spread	Illiquidity premium of existing holdings of fixed income	<ul style="list-style-type: none"> Incorporated with a haircut allowance for potential forced sale of fixed-income (represented by predictability factor) and the dollar duration ratio is capped by eligible asset % to avoid excessive asset dollar duration comparing to liabilities. Under HK RBC credit spread risk stress scenario, adjusted spread will be widened by credit spread stress with a prescribed haircut, effectively reducing the balance sheet volatility from asset shocks that are not related to credit events.
Constant Prescribed Spread	Prescribed illiquidity premium for fixed income reinvestment	<ul style="list-style-type: none"> Only applicable when asset dollar duration is less than dollar duration of liabilities backed by eligible assets Application ratio applied to prescribed constant spread is subject to a prescribed cap of 20%. Reinvestment spread is calibrated by historical 5th percentile, ranging from 20 bps to 90 bps depending on rating and tenor mix of existing holdings, subject to risk correction and capped by adjusted spread. Under HK RBC credit spread risk stress scenario, the prescribed constant spread would remain unchanged.
LTA	Spread earned from equity and property assets backing segregated long-term liabilities	<ul style="list-style-type: none"> Only applicable for physically segregated long-term liabilities (Par and universal life business) backed by equity and property assets. LTA is prescribed as 100 bps, and equity and property proportion is capped to ensure there will be sufficiently long holding period. $\text{Cap on equity and property proportion} = \frac{\text{Sum of discounted liability outgo cashflows over 30 years}}{\text{Sum of total discounted liability outgo cashflow for all years}}$

3.1.2 Matching Adjustment Utilization

Matching adjustment recognizes the illiquidity premium from fixed-income and spread earned from long-term holdings of equity and property assets. When formulating SAA, insurers not only have to consider the asset risk charge, but also MA implications.

asset risk charge from longer duration is compensated by the MA benefit.

Apart from reviewing the strategies on fixed-income portfolio to utilize the MA, insurers can review their asset segmentation to further enhance their capital efficiency.

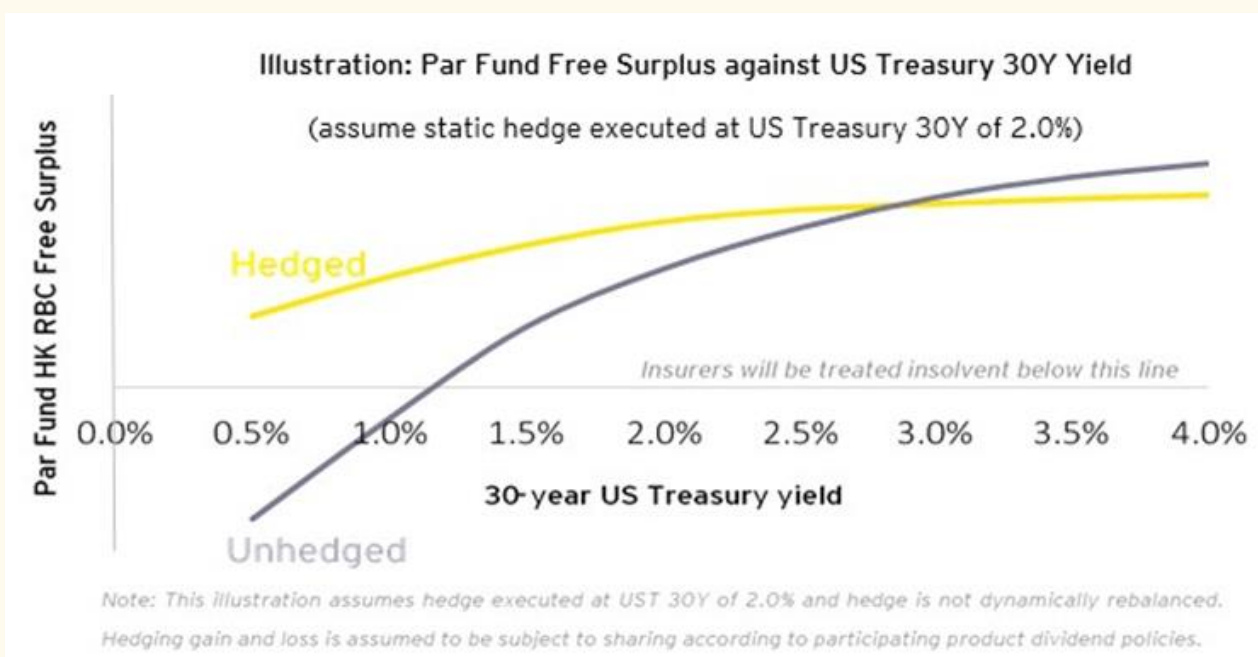
MA incentivizes insurers to duration-match their fixed-income assets with liabilities, the incremental

Line of Business	Under existing regime	After transiting to HK RBC
Par and Universal Life (UL)	There are no capital incentives to physically segregate Par Fund and UL Fund.	From capital perspective, insurers should physically segregate the Par Fund and UL Fund, so that LTA can be recognized for equity and property holdings backing Par and UL.
Non-participating (non-par)	<p>Yearly renewable products or pure protection products will have positive net level premium reserves, requiring assets to support reserves.</p> <p>Investment strategies on the assets backing yearly renewable products will be more yield-driven given the consideration of valuation discount rate.</p>	<p>Yearly renewable products or pure protection products typically have negative reserves under HK RBC.</p> <p>Assets are no longer required to support liabilities compared to HKIO, thus these assets can be released from the non-par fund or non-par MA portfolio, investing for higher return-on-capital or deployed to strategies that meet insurers' corporate strategic planning subject to risk appetite and direction of corporate strategy.</p> <p>Assets backing non-par saving products, those with positive reserves, should duration-match the liabilities to utilize the matching adjustment.</p>

3.2 Hedging Strategy

Interest rate mismatch risk from Par business is a key driver to balance sheet volatility under HK RBC. Insurers typically have structural duration gap between assets and liabilities in Par businesses, given very long term or even whole-life guaranteed liabilities (commonly more than 30 years) while there are limited availability of over 30-year assets. From business perspective, it is challenging to solely rely on fixed income asset allocation to reduce the interest rate risk, given that risky asset allocations are crucial to Par products to maintain the market competitiveness. Interest rate hedging is a way out – mitigate the mismatch risk of Par products via derivative overlay.

3.2.1 Benefits for Interest Rate Hedging



1) Stabilize solvency and reduce the interest rate sensitivity of free surplus

- Reduce shareholder cost of capital injection to Par business in financial crisis, by providing significant protection to interest rate downside scenario. Capital from non-par can be freed-up as greatly reduced potential injection or subsidization to Par business under downside scenarios.
- Upside under interest rate rise scenario will be partially forgone, yet the forgone of upside is much less significant than downside gain.

2) Release the capital requirement allocated to unrewarded interest rate risk, allowing insurers to deploy the capital to hold assets of attractive risk-adjusted returns

- Required capital to interest rate risk is reduced by hedging, releasing room to take more rewarded risk, e.g. increasing equity and alternative asset allocations, to improve product competitiveness.

3.2.2 Dynamic of asset and liabilities with interest rate hedging

Free surplus of Par business under HK RBC exhibits a significant convexity to changes in interest rate, i.e. increase of free surplus during interest rate rising scenarios are more steady, however free surplus will decrease at an accelerated pace when interest rate drops. The convexity arises from the asymmetry of product nature, where upside will be partially shared to shareholder, yet shareholder will fully bear the downside when guarantee bits, i.e. when assets under Par fund are insufficient to meet the guaranteed liabilities. Cost borne by shareholder will increase exponentially when interest rate drops without hedging.

Hedging improves Par Fund solvency and reduces the interest rate sensitivity under HK RBC, reducing the chance of asset being insufficient to meet guarantee liabilities.

3.2.3 Practical Considerations

Insurers should consider the collateral requirement of the hedging instrument. It is crucial to develop frameworks to ensure sufficient collateral, manage the collateral operations and meet the firm-specific liquidity risk limits. Typically, the interest rate hedge involves use of bond forwards, bond futures and interest rate swaps. Choice of instrument should take consideration of the basis risk (e.g. swap spread risk if using interest rate swaps to close duration gap from USD business, where USD liability is discounted by US treasury risk-free rates) and the collateral requirement depending on clearing type.

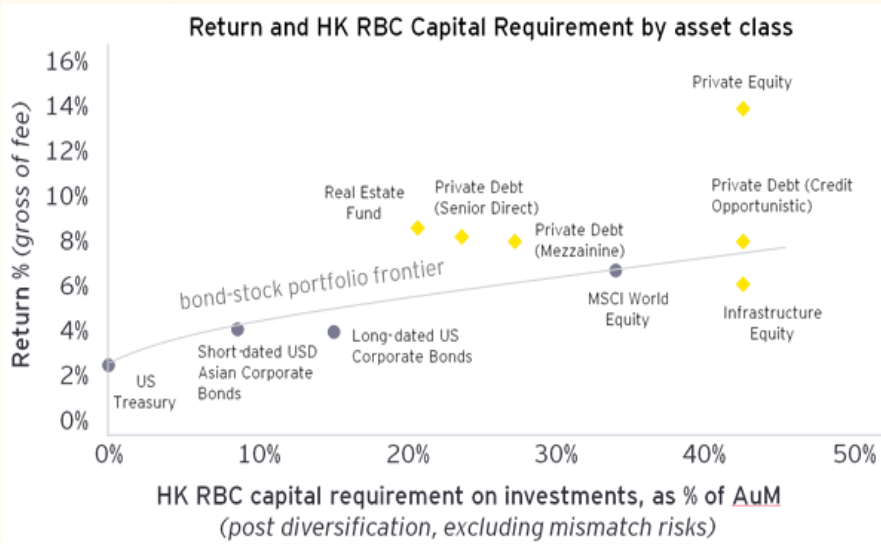
For example, eligible collaterals for over-the-counter central cleared interest rate swaps include cash and US treasury. Such collateral requirement will lower the portfolio returns to insurers. Under HK RBC, cash and US treasury holdings will be unfavourable to matching adjustment given no additional spreads to contribute to MA.

After the implementation of hedging, we recommend insurers to monitor the hedge effectiveness to ensure the primary objective of hedging will be realized. As the required notional changes with market conditions and business growth, insurers have to regularly rebalance or develop a dynamic hedging framework.

3.3 Alternative assets

3.3.1 Return vs Capital

We examine the trade-off of returns and capital requirement for a range of assets under HK RBC, comparing the asset returns and asset risk charge for investment risk (credit spread / equity / property risk) after diversifications. Liabilities interactions, such as risk sharing with policyholder and other firm-specific management actions, are not reflected in this analysis. The asset side return versus capital analysis serves as a starting point to understand the risk-return dynamic of various asset classes.



Note 1: Counter-cyclical adjustment (CCA) is excluded in the analysis as it aims to reduce the volatility arising from short term equity fluctuations.

Note 2: Capital requirement on mismatch risks, such as interest rate risk and currency risk, are excluded. Mismatch risks can be mitigated via derivative overlay given these risks are not associated with risk premium. Excluding interest rate results in a better comparison of assets in terms of the trade-off between capital requirement from investment risks and associated risk premium.

Note 3: Foreign assets are assumed to be currency-hedged to the liability currency, otherwise additional currency risk capital will be required.

Real estate fund, private equity and private credit are more capital-efficient asset classes under HK RBC, which outperform the traditional bond-and-stock portfolios in terms of capital and return trade-off. Details of these alternative assets are covered in Section 3.3.3.

Moreover, alternative assets are less correlated with traditional assets and provide a more diversified source of return, e.g. illiquidity, complexities, inefficiencies, manager skills, etc.

To formulate ALM strategies fitting liabilities, insurers will have to further consider on the firm-specific liability profile (e.g. policyholder risk and return sharing) and interactions of asset to liability discount rate (i.e. MA). For example, long-dated corporate bonds may not be attractive from pure asset-only perspective, yet it can provide capital benefit from MA if used to support long-tailed liabilities. Apart from asset-liability interactions, other areas of consideration include financial impacts, risk appetite, liquidity, investment management, etc.

3.3.2 Alternative Asset Universe

Alternative asset universe has provided opportunities for insurers to look for better sources of growth, income, and inflation protection. Under HK RBC, alternative assets in general demonstrate a higher return on capital, and historically demonstrate a better risk-adjusted return than traditional assets.

Historical Performance of alternative assets, by styles

(As of Dec 31, 2020)	Annualized Returns				Volatility		Return per Risk	
Horizon (years)	1Y	5Y	10Y	15Y	10Y	15Y	10Y	15Y
MSCI World Index	18.5%	11.2%	8.7%	6.7%	15.3%	17.6%	0.6	0.4
Bloomberg Barclays Aggregate Bond	7.3%	4.4%	3.8%	4.5%	3.0%	3.2%	1.3	1.4
Private Equity - Venture Capital	51.2%	20.7%	18.6%	14.4%	10.9%	10.7%	1.7	1.3
Private Equity - Buyout	20.7%	15.7%	13.7%	13.4%	7.9%	10.9%	1.7	1.2
Private Debt - Senior Direct Lending	1.5%	6.7%	8.6%	8.2%	6.0%	8.8%	1.4	0.9
Private Debt - Mezzanine Lending	7.2%	8.3%	8.7%	8.0%	4.5%	5.3%	1.9	1.5
Private Debt - Credit Opportunistic Lending	3.5%	5.6%	7.0%	8.0%	6.9%	11.2%	1.0	0.7
Real Estate - Core	-3.9%	4.2%	7.2%	3.1%	3.8%	9.9%	1.9	0.3
Real Estate - Value-Added	1.3%	7.8%	10.1%	5.5%	3.5%	10.8%	2.9	0.5
Real Estate - Opportunistic	-2.7%	6.9%	8.5%	6.4%	4.3%	13.3%	2.0	0.5

Source: CAIA Portfolio for the Future™: A practitioner's guide to the five essential marks of effective capital allocation

For life insurers especially, the illiquid nature of real estate and private assets fits well with the liability profiles nature and allows the insurers to extract additional illiquid premium. However, unlike traditional assets, alternative assets are more complex in structures that would require expertise and due diligence effort. To expand the appetite on alternative assets, insurers will need to perform liquidity assessment and consider balance sheet resilience to avoid forced sales under adverse scenarios.

Unlike traditional assets which are invested all upfront, alternative assets often take years of time to reach the target fund size. Investors will need to firstly make their commitment, the fund managers will then search for good opportunities that aligns with the fund mandate and request capital from investors. This “investment period” of drawing down and investing the committed capital usually take years, for example, 2 - 4 years for real estate funds and 5 - 7 years for private equity. After the

“investment period”, the fund will transit to the “harvest period” where the fund will distribute the invested capital, gain and income to the investors.

Given the target investment will take time to build up, early planning (e.g. resource planning, investment sourcing) would be recommended for increasing allocation to alternative assets.

3.3.3 Considerations of Alternative Assets

Asset Classes	Real Estate	Private Credit	Private Equity
Overview	<p>Real estate fund tends to achieve better geographic diversification against physical real estate, which styles include core, value-added and opportunistic</p> <ul style="list-style-type: none"> • Core fund is most liquid and least leveraged, where returns are mainly from rental income • Value-added fund uses more leverage than core fund and returns are from both rental income and property appreciation • Opportunistic fund is least liquid and have the highest leverage, which generate returns mainly from property appreciation 	<p>3 major styles of private credit fund:</p> <ul style="list-style-type: none"> • Senior direct lending contains bond-like exposures and typically leveraged, deriving returns mainly from coupon payment • Mezzanine lending contains both bond-like and equity-like features, including convertible bond, preferred stock, etc. • Credit opportunistic lending contains equity-like exposures and usually unleveraged, which deploys capital where market liquidity is lowest and heavily depending on manager's skill 	<p>Major types include venture capital and buyouts</p> <ul style="list-style-type: none"> • Venture capital are privately held stock or equity-linked securities • Buyouts focus on more established and mature enterprises that are attempting to transform into being more profitable
HKRBC Capital Treatment	<ul style="list-style-type: none"> • Prescribed shock size of 25% regardless of geographical location, style or building types. • Leveraged fund is subject to higher shock size on net asset value • Even taking leverage into account, the capital charge for real estate fund after diversification is typically lower than listed equity (due to lower correlations with other market risks) • Can be entitled with LTA 	<ul style="list-style-type: none"> • If look-through cannot be applied, it will be subject to other equity risk (shock size is 50% before counter-cyclical adjustment CCA) and not eligible to neither MA nor LTA • If look-through can be applied, it will be subject to credit spread widening risk or other equity risk depending on the nature of underlying assets 	<ul style="list-style-type: none"> • Subject to equity risk as other equity for both styles, i.e. 50% shock size before counter-cyclical adjustment CCA. • Can be entitled with LTA
Advantages	<ul style="list-style-type: none"> • Outstanding return-on-capital, as it is subject to lowest capital charge among non fixed-income assets with highest diversification benefits • Provide diversification to traditional assets, such as listed equities and bonds • Provide hedge against unexpected inflation 	<ul style="list-style-type: none"> • Outstanding return-on-capital if look-through can be applied, especially for the senior direct lending style • Private credit fund demonstrates stable returns through recent historical economic cycles. Historically, it demonstrates a better resilience than listed equities during market downturns. 	<ul style="list-style-type: none"> • Return is consistently higher than other non fixed-income assets • Compared to listed equity, private equity has a higher return-on-capital, where the additional return outweighs the additional capital charge. • Add diversification to portfolio given its non-perfect correlation with listed equities and other assets

Conclusion

HK RBC changes key aspects of the investment considerations for insurers, where we foresee insurers will start to revisit their existing ALM strategies, aiming to deploy capital more efficiently to create policyholder and shareholder values.

Prior to the effective date of HK RBC, insurers are still subject to the HKIO basis solvency requirement while also need to ensure a smooth transition to HK RBC in 2 years' time. Insurers are now in a "limbo period", where certain ALM strategies that improves HK RBC resilience may sometime result in negative impacts under HKIO basis, or even putting HKIO solvency at risk.

As such, insurers should start to manage the HK RBC resilience during this transition period while operating within the boundaries of HKIO solvency. Firstly, insurers may review their SAA to enhance asset-liability matching from the economic perspective. Secondly, insurers should prepare to build up the capacity to derivative overlay solutions to mitigate the ALM mismatch risks that cannot be managed by SAA. Meanwhile, it is also suggested to start exploring and planning for investment of wider range of asset classes including alternative assets such that capital will be deployed more efficiently for a higher risk-adjusted return.

Looking beyond Hong Kong, there is also new economic basis solvency regime upcoming in South Korea, Japan and Taiwan, that many insurers will be subject to the same challenge as Hong Kong insurers during the transition. It is foreseeable that Asian insurers will be looking for similar ALM solutions such as derivative solutions and alternative assets, and some have already started to make changes to their portfolios. We would suggest Hong Kong insurers to take steps now to plan for their ALM roadmap to ensure that they will be well positioned for the economic balance sheet era relative to their competition across the continent.

The views reflected in this article are the views of the authors and do not necessarily reflect the views of the global EY organization or its member firms.

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Interview with Sai-Cheong Foong

Message from the editor Timothy Wong

In actuarial profession, “apprenticeship” is highly valued. Junior actuaries acquire experience and skills under the guidance and coaching of senior actuaries. When it comes to actuarial career development and planning, coaching from senior actuaries also plays an important part.

Starting from this issue of the newsletter, we will conduct a series of interviews with the well-known actuaries in Hong Kong. We will talk about their actuarial journey and discover their “secrets of success”. They may not be able to provide career coaching to junior actuaries individually, but hopefully their stories and experience will bring inspiration and career aspiration to the wider group.

ASHK Interview - Sai Cheong Foong

Mr. Sai Cheong Foong is currently the Group Head of Technical Assistance Advisory Team of AIA Group Limited. He became AIA’s first Group Chief Actuary in 2009 and had served in that position for over 12 years.

Mr. Foong is a member of the Transition Resource Group for IFRS 17 established by the International Accounting Standards Board and a member of the Hong Kong Insurance Implementation Support Group established by the Hong Kong Institute of Certified Public Accountants.

He has more than 29 years of international experience in life insurance practices and has held various actuarial and management positions in Kuala Lumpur, New York, Hong Kong and Beijing.

Mr. Foong is a Fellow of the Society of Actuaries, the Institute of Actuaries of Australia and the Actuarial Society of Hong Kong as well as a Chartered Enterprise Risk Actuary. He has been active in the activities of the Actuarial Society of Hong Kong, serving as a Council Member from 2006 to March 2022 including as the President in 2009. He chaired the Advisory Committee of the Insurance, Financial and Actuarial Analysis Programme of the Chinese University of Hong Kong in 2018 to 2021. He received a Master’s degree in Economics from Macquarie University in Australia in 1993.



Tell us more about yourself

Q ASHK: How did you become an actuary? What did you study at university?

A Sai Cheong (“SC”): It goes back to my university years. Before I entered the university, I was offered two options: one was to become an engineer; and the other one was to become an actuary. I asked my father, which one he would support, because he was going to pay for my education. He said actuarial studies would be better. For me, both were fine as I like science, mathematics, and statistics. Becoming an actuary was a very decent choice anyway. So, I joined Macquarie University undertaking an undergraduate degree with a double major in Actuarial Studies and Finance which took three years. I then spent one more year for a postgraduate degree in Economics majoring in Actuarial Studies. After I graduated, I went back to Malaysia and joined AIA as an Actuarial Trainee. I started my actuarial career in May 1993.

Q ASHK: How many countries have you worked at? What takes you to each of the countries? Any countries you like the most?

A SC: My first job was in Sydney doing computer programming for a few months. There was a short period between the time when I finished the last university exam and the graduation ceremony, so I joined a local software house as a temporary full-time programmer developing financial software. After graduated, I worked in Kuala Lumpur with AIA Malaysia. In 1998, I became the Appointed Actuary of AIA Malaysia. In 2001, I took the opportunity for a transfer to the then regional Home Office of AIA in Hong Kong. From 2002 to 2004, I was given the exposure to work at the New York headquarter of AIG, the former parent company of AIA. I spent two years there in the AIG Life Division. After New York, I came back to Hong Kong and eventually became the Group Chief Actuary in 2009 when AIA Group Limited was formed. Recently I was given a unique opportunity to take up a new assignment in Beijing. AIA has made a strategic investment owning a 24.99% equity stake in China Post Life which is the insurance subsidiary of China Post Group, a large state-owned enterprise. It has access to the biggest retail financial

distribution network in China. I am the leader of AIA’s Technical Assistance Advisory Team dedicated to support value creation in China Post Life. We provide on-site technical assistance and advisory support on actuarial management, product, distribution, investment, IT, risk management, etc. In total, I have worked in Sydney, Kuala Lumpur, Hong Kong, New York and Beijing - in other words five cities in four countries. They are quite different. I like diversity, local food, meeting people and seeing interesting places so I have been enjoying all of them.

Q ASHK: Have you ever envisioned being where you are now, let’s say 10 or 20 years ago?

A SC: I did not envision it 20 years ago. If we talk about 10 years ago, that’s 2012. It was after AIA’s IPO when I was already the Group Chief Actuary. I didn’t think of going into the current private equity role specifically, but I was thinking that one day I would do something more than actuarial. It’s not so much about where I am today but it is the journey that I have undertaken. All along, I have been striving to lead and help our people and organisation to innovate and pursue new ways of doing things in order to drive value creation, whether it is in the current advisory role to enhance AIA’s strategic investment or the previous role as the Group Chief Actuary. Now, I am not in an actuarial role anymore but the skills and experiences from actuarial and insurance management have been extremely relevant when I am given a wider remit across actuarial, distribution, product, investment, etc. to support value creation in a unique business with significant upside potential.



Tell us more about yourself

Q ASHK: Can you tell us something interesting about yourself?

A SC: Well, some of my colleagues have already known this. They were surprised when they first heard it - I am a Sunday school teacher for primary school children. This is a volunteer service for my church in North Point. We have a programme to organize activities like games, singing hymns, bible storytelling and so on for children who follow their parents to church. At first, I did this because of my sons who joined the Sunday activities and the church needed people to help. My intention was to contribute whatever I could. However, I have benefited from many learnings. You need to be very authentic with children. If your storytelling is not interesting, they will let you know it from their response. Children do not hide their thoughts regardless of whether the teacher is a qualified actuary! It has been a humbling experience. I have learnt better ways to listen, communicate and engage. I have really enjoyed the relationships with the children. I have found that when I give, I get back more in terms of friendship and love. So I

have kept doing this for over a decade. Every year when I was asked whether I wanted to continue, I said yes.

Career as an Actuary

Q ASHK: What were the greatest successes or accomplishments in your previous roles?

A SC: I was the first Group Chief Actuary of AIA Group Limited and privileged to be part of a team contributing to the success of AIA. It is really great now, but if we go back to 2009, it was a humbling start. Back then AIA was a subsidiary of a company called AIG. In 2008, AIG was at the epicentre of the Global Financial Crisis (“GFC”). I was seeing the insurance regulators in Hong Kong daily. Fortunately, we already knew each other very well beforehand because of my service to ASHK which regularly engaged the Insurance Authority for actuarial issues relevant to the industry. The IPO of AIA which happened in 2010 was an opportunity to

transform and unleash the potential of AIA. That year was an extremely busy year because we were doing three prospectuses given the many twists and turns along the way! The IPO finally became successful in October 2010. At that time, it was the world’s third largest IPO and the largest-ever insurance IPO. I was part of the small launch team responsible for marketing AIA to investors globally. It was an eye-opening experience, enabling me to appreciate how analysts and investors would look at insurance and, in particular, actuarial work.

Career as an Actuary

Q ASHK: What would you say is the secret of your success?

A SC: I have 3 points to make. One is **professionalism**. As actuaries, you need to be very professional and have the technical know-how and business acumen.

You also need effective **communication** skills, and the ability to engage different stakeholders. Actuaries are often not the sole decision makers so you need to work with other people. I have mentioned that we pioneered the approach to set up the Integrated Reporting team, which is separate from the actuarial function. I sent our best valuation actuaries to this team such that it is not only equipped with the best combination of actuarial and other necessary skills to bring about an optimal operating model to meet new reporting needs, but it has also freed me up to do more like enhancing actuarial governance for the Group.



Last but not least, it will be very effective if you build **trust** with different stakeholders by consistently delivering on promises and adding value to the company.

Q ASHK: What were the greatest challenges you have faced in your career so far?

A SC: One challenge was the GFC in 2008, which I have briefly covered earlier. Another one was the pandemic, which started in early 2020. In March that year, interest rates reached historical low, and financial markets were highly volatile. I see this as an ultimate stress test in financial management and actuarial work like product control and pricing. Looking back, I had worked with my CFO and other people in AIA to successfully navigate AIA through this challenging period. In 2020, we were brainstorming ideas to contribute to our community and convinced our AIA Hong Kong business to provide free protection for frontline

cleaning workers. These frontline workers were at the forefront of fighting the pandemic. It's meaningful that AIA played a part in providing them with free protection. I'm very proud to have contributed this idea.

Q ASHK: What is the focus of your new role? What makes it interesting? What are the main differences compared to your previous roles?

A SC: I have explained my new role earlier. Now I'm stationed in Beijing. One difference is the language. I'm very happy that my Mandarin has improved, and people here can better understand what I say. The other major difference is the scope of my work: it is much broader than actuarial work. Good communication skills, the ability to engage different stakeholders and building trust are critical. Without these, no matter how good and professional you are, it won't be as effective.

I've worked in Australia, Malaysia, New York, Hong Kong and Beijing. Every place is different and it's important to be agile and be able to adapt to the new environment quickly. In each assignment, I have strived to go into different areas to add value and to enjoy and make the best out of every moment.



Experience with ASHK

Q ASHK: When did you first join ASHK?

A SC: I joined ASHK in 2005 after returning to Hong Kong from the posting in New York and someone encouraged me to join ASHK Council in 2006. I served in the Council until March this year which was an opportune time for me to step down since I have moved to Beijing. In the past sixteen years in Council including in 2009 as ASHK President, I truly enjoyed it and benefited much from meeting and building relationships with many great people. I recommend our young actuaries to volunteer themselves for ASHK work.

Q ASHK: What is your most memorable moment serving at the ASHK Council?

A SC: It was during the GFC in 2008 and the pandemic in 2020. At both times, I served in the ASHK Life Committee as one of the co-chairpersons. During the GFC, there were unprecedented financial market volatilities. Interest rates went to a historically low level. A group of actuaries came together and made use of our expertise to try to solve problems for the industry in Hong Kong. We reached out to the insurance regulator, previously called the OCI (Office of the Commissioner of Insurance). The OCI was very supportive, and together we found a solution to an acute industry issue which was in the ASHK Notice for Appointed Actuaries in 2008.

Ten plus years later in March 2020, we had

historically low interest rates after the pandemic hit the world. Given the previous experience, I was contacted by colleagues and friends in the industry to do something helpful again. One interesting thing is that the Insurance Commissioner in 2008 has become the Chief Executive of the Insurance Authority. With the joint efforts of the Insurance Authority and ASHK, a notice for Appointed Actuaries was issued by the Insurance Authority in 2020.

This is very memorable to me, and I feel very fortunate and proud to have worked with other actuaries to contribute our skills twice to solve problems for the industry together with the regulators.

Q ASHK: Any development you would like to see in ASHK in the future?

A SC: One thing I really like to see it happen at ASHK is to successfully complete our long-running Statutory Path Project for the statutory recognition of Fellows of ASHK for Hong Kong actuarial practices. When I first joined ASHK, this idea had already been raised and over time, has become a strategic initiative of ASHK. There are many insurance companies and multinationals operating in Hong Kong. The statutory recognition of ASHK actuaries is important such that we can play more effective roles in furthering Hong Kong position as an international financial centre.



Advice

Q ASHK: Any advice to actuaries? Or to our young actuaries who have just started their career?

A SC: The key is to build trust. Actuaries are very technical, and they may have the best solutions in the world. These solutions could only be relevant if actuaries communicate them effectively so that they can be properly understood and adopted by the decision makers.

For young actuaries, you need to focus on professionalism and build up the technical know-how and gain as much experience as you can. You also need to build networks and relationships. Be prepared to seize the opportunities when they arise. Don't be just quietly working. You should also engage, communicate and build trust.

Outlook of Hong Kong / Asia insurance sector

Q ASHK: What do you think of the outlook of Hong Kong/Asia insurance market?

A SC: The long-term outlook is great for Hong Kong and Asia. There might be short-term uncertainties and ups and downs, but I believe Asia and Hong Kong are the most attractive insurance markets in the world because of the enormous opportunities for very sustainable long-term growth here.

Q ASHK: What are the growth opportunities in this region?

A SC: There are many structural growth factors for insurance: large population, rising income, ongoing urbanisation and a huge protection gap. For Asia excluding Japan, there is a huge and ever-increasing protection gap because of insufficient public provisions like social security and inadequate private covers like insurance and pension relative to the expanding needs. That's why I think Asia and Hong Kong have the ingredients for sustainable growth potential.

CALL FOR ARTICLES

We welcome members' contribution to the "Hong Kong Actuaries" Newsletter, especially, the Feature Articles and Knowledge Sharing sections. If you have written any inspiring articles or have read any interesting articles from other actuarial organisation(s), please feel free to let us know. We will try to reprint the article(s) in our newsletter to share with our members.

For the above issues, please e-mail your articles or views to Timothy Wong by email at Timothy-KH.Wong@AIA.COM or ASHK Office by email at info@actuaries.org.hk. Publication of contributions will be at editor's discretion.



EVENTS HIGHLIGHTS

19 May 2022

Innovations in medical fraud and waste and abuse (FWA) detection using AI

Common FWA detection methods

Technology	Strength	Weakness
Red flags/business rules	<ul style="list-style-type: none"> Expert judgement and experience; Easy to understand 	<ul style="list-style-type: none"> Incomprehensive; Outdated quickly; Cannot deal with unknown unknowns
Link analysis/social media	<ul style="list-style-type: none"> Benefit from beyond claims data; Visualization of relationships 	<ul style="list-style-type: none"> Costly to acquire outside data; More suited for honing in on a suspect rather than searching for it to begin with.
Predictive model	<ul style="list-style-type: none"> Fast and powerful for <u>known</u> fraud types; Enhanced business rules approach 	<ul style="list-style-type: none"> Requires labelled data; Limited by small data set of known frauds; Looking at a claim as silo Cannot deal with unknown unknowns
Anomaly detection	<ul style="list-style-type: none"> Requires little or no user input Ability to process large data set 	<ul style="list-style-type: none"> Oftentimes provides little or no explanations; Might be applicable to narrow range of problems



23 June 2022

ASHK Health Virtual Talk - Gen Re Dread Disease Survey 2015-2019 – Hong Kong Results

**Gen Re Dread Disease Survey 2015–2019
Hong Kong Results**

Date: 23 June 2022

Time: 12:30– 2pm

Speaker:
Ms Orchis Li
General Manager
General Reinsurance



Moderator:
Mr Kevin Lee, FASHK
Chief Executive Officer
i-Brilli Holdings Limited



EVENTS HIGHLIGHTS

4 July 2022

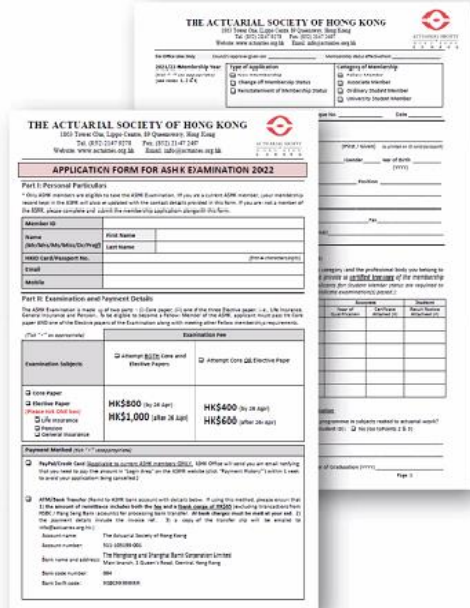
ASHK Examination Information Session Certificate in HK Insurance Markets and Regulations

Registration process


19 Jul 2022 Registration deadline
19 Aug 2022 Examination

Any enquiries, please contact ASHK staff,
 Joanna Cheung at
joannacheung@actuaries.org.hk

***non-member need to register as an ASHK Member**



The screenshot shows the 'APPLICATION FORM FOR ASHK EXAMINATION 2022' from The Actuarial Society of Hong Kong. It includes sections for Personal Particulars, Examination and Payment Details, and Payment Method. The form is partially filled out with handwritten information.



Wilson Wu

UPCOMING EVENTS

19 August 2022

ASHK Examination

[See More](#)

Oct 2022

**PDC Seminar — What's Next? -
Life and Health Insurance Product
Development Beyond COVID-19**

30-31 August 2022

**ASHK Actuarial Innovation
Conference 2022**

[See More](#)

Oct 2022

IFRS Seminar 2022

20-29 September 2022

Joint Regional Seminar 2022

[See More](#)



ASHK UPDATES

Alex Wong

Officer



I am so glad to join as a member of ASHK office! Having been in administrative role in a chamber of commerce for the past few years, I believe my experience and passion can bring more fresh ideas and skills to ASHK.

Although the pandemic changed the working style, it is a great opportunity to let ASHK change to a “Smart Office” so that all team members can work more efficiency and match the future development of ASHK.

I look forward to meeting members in the office and hope ASHK can be one of the famous societies in Hong Kong.

Email: alexthwong@actuaries.org.hk

MEMBERSHIP UPDATES

New Members

Associate

Wing Sze Susana PUI	Boltech	Associate member
Dhiran DOOKHI	Deloitte	Associate member
Pui San WONG	Pricewaterhousecoppers	Associate member
Ka Yin YAU	Peak Reinsurance Company Limited	Associate member
Yue Xia	Peak Reinsurance Company Limited	Associate member

Student

Wing Yee CHOI	The University of Hong Kong	University Student member
Difei CHEN	The University of Hong Kong	University Student member
Yihang LIN	The University of Hong Kong	University Student member
Hiu Tung Athena	The University of Hong Kong	University Student member
Yize WANG	The University of Hong Kong	University Student member
Wen Jin DONG	The Hong Kong Polytechnic University	University Student member
Tingzhu JIN	The Hong Kong Polytechnic University	University Student member
Yuhui LYN	The Hong Kong Polytechnic University	University Student member
Siyu ZHU	The Hong Kong Polytechnic University	University Student member
Yu Chiu LAM	Hong Kong University of Science and Technology	University Student member
Ho Yin CHUNG	Hang Seng University of Hong Kong	University Student member
Sze Man TAM	Hang Seng University of Hong Kong	University Student member
Shaoming HONG	Partner Reinsurance Asia Pte Ltd	Ordinary Student member
Hon CHOU	Nil	Ordinary Student member

Reinstated Members

Associate member

Xiao HU	China Reinsurance HK Company Ltd	Associate
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WE WELCOME CORPORATE ADVERTISEMENTS



The ASHK will accept corporate advertisements in the ASHK Newsletter provided that the advertisements do not detract from the actuarial profession. Acceptance and positioning of advertisement will be at the editor's discretion.

File Formats

Advertisers have to supply the artworks which should be created in MS Word/ PowerPoint/JPEG/PDF formats.

Advertising Rate

	One issue	Whole Year (4 issues)
Full page (A4-size)	HK\$6,000	HK\$5,000 each

To advertise, please contact ASHK Office by

Tel: (852) 2147 9168 or e-mail: info@actuaries.org.hk

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