

MILLIMAN CLIENT REPORT

# Supplementary Report of the Independent Actuary on the Transfer of Business from the Hong Kong Branch of Zurich Life Insurance Company Ltd. to Zurich Life Insurance (Hong Kong) Ltd.

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## Section 1 Introduction

### 1.1. BACKGROUND

- 1.1.1. When an application is made to the High Court of the Special Administrative Region of Hong Kong, Court of First Instance (the “Hong Kong Court”) for an order to sanction the transfer of long term insurance from one insurer to another, it must be accompanied by a report on the terms of the scheme by an independent actuary in conformance to Section 24 of the Insurance Ordinance, Chapter 41 of the Laws of Hong Kong (CAP 41) (the “Ordinance” or “HKIO”).
- 1.1.2. I, Paul Sinnott, have been appointed as the Independent Actuary pursuant to Section 24 of the Ordinance to provide an independent opinion on the terms and likely effects of the proposed scheme (the “Scheme”) for the transfer of all long term insurance business carried on by Zurich Life Insurance Company Limited (“ZLIC”) through its Hong Kong Branch (“ZLIC HK branch”) (also hereinafter referred as “Transferring Business”) to a new Hong Kong domiciled subsidiary of Zurich Insurance Holdings (HK) Limited (“ZIH”), which is wholly-owned by Zurich Insurance Company Ltd. (“ZIC”), namely Zurich Life Insurance (Hong Kong) Ltd. (“ZLIHK”).
- 1.1.3. This Scheme was initiated as part of the restructuring of the Hong Kong operations of the Zurich Insurance Group Ltd. (“Zurich Group”) to enhance financial stability for policyholders and operating efficiency including facilitating more streamlined audit and regulatory compliance processes across the organisation.
- 1.1.4. My appointment as the Independent Actuary for the Scheme has been noted by the Hong Kong Insurance Authority (“IA”).
- 1.1.5. I have prepared a report to the Hong Kong Court entitled “Report of the Independent Actuary on the Transfer of Business from the Hong Kong Branch of Zurich Life Insurance Company Ltd. to Zurich Life Insurance (Hong Kong) Ltd.” dated 29 March 2021 (the “Main Report”).

### 1.2. THE SUPPLEMENTARY REPORT

- 1.2.1. The purpose of this report (the “Supplementary Report”) is to provide an updated assessment of the likely effects of the Scheme on the financial security and benefit expectation of policyholders and to address any areas for which information was not available at the time I prepared the Main Report. I also consider whether the conclusions reached in the Main Report remain valid in the light of updated financial information available as at 31 December 2020 and 31 March 2021, any other relevant significant events subsequent to the date of finalisation of the Main Report, and any policyholder objections to the Scheme notified to me prior to the date of this Supplementary Report.
- 1.2.2. Any defined terms used in the Main Report have the same meaning in this Supplementary Report. In particular, ZLIC, ZLIC HK branch and ZLIHK are collectively referred to as the “Parties”, and their policyholders include:
- the Transferring Business policyholders are referred to as the “Transferring Policyholders”, who hold policies which are underwritten by ZLIC HK branch (the “Transferring Policies”);
  - the policyholders remaining in ZLIC after the Scheme are referred to as the “Non-Transferring ZLIC Policyholders”, who hold policies which are underwritten by ZLIC excluding those underwritten by ZLIC HK branch (the “Non-Transferring ZLIC Policies”); and
  - the existing policyholders of ZLIHK before the Scheme are referred to as the “Existing ZLIHK Policyholders”, who hold “Existing ZLIHK Policies”

- 1.2.3. This Supplementary Report should be read in conjunction with my Main Report, and both should be considered in their entirety as individual reports or sections, if considered in isolation, may be misleading.
- 1.2.4. Details of the scope of my work, qualifications and disclosures, considerations of the Scheme, reliances and limitations and the terms of reference applying to my work are provided in the Main Report.

### **1.3. RELIANCES**

- 1.3.1. The reliances and limitations listed in Section 1 of my Main Report also apply equally to this Supplementary Report.
- 1.3.2. In preparing this Supplementary Report, I have had access to documentary evidence provided by the Parties, the key elements of which are listed in Appendix A. I have also had access to, and discussions with, staff and management of the Parties.
- 1.3.3. In coming to my conclusions, I have relied upon the accuracy of the information which has been provided to me in written or oral form, without independent verification. I have considered, and am satisfied with, the reasonableness of this information based on my own experience of the Hong Kong insurance industry.
- 1.3.4. I have presented solvency positions of ZLIC and ZIC under Swiss Solvency Test (“SST”) basis in Section 3. The results have been produced by the Parties. While certain estimates of solvency positions have not been subject to external audit, they have been subject to internal review.
- 1.3.5. The Parties have estimated the solvency positions of ZLIC under HKIO bases. The results have been subject to internal review. The Parties have also reported the approximated year-end solvency positions of ZLIC under HKIO basis to the IA annually. In the context of my Independent Actuary opinion on the transfer of the portfolio of ZLIC HK branch to the ZLIHK, I believe the Parties have taken a reasonable approach to estimating results in order to compare the solvency ratios of ZLIC and ZLIHK.
- 1.3.6. I have not independently reviewed the calculations provided to me and I explicitly rely on the Parties and their Appointed Actuaries and Chief Actuaries that all the calculations used in relation to the Scheme are appropriate and accurate as presented. I have, however, reviewed the methodology and assumptions used in some of the calculations.

### **1.4. LIMITATIONS**

- 1.4.1. This Supplementary Report has been prepared on the basis as set out in the Supplementary Report and its appendices. It has been written on the basis that it will be utilised by persons technically competent in the areas addressed and with knowledge of the business activities of the Parties and the nature of the risks and rewards inherent in the insurance sector in which they operate.
- 1.4.2. This Supplementary Report must be considered in its entirety as individual sections, if considered in isolation, may be misleading. Draft versions of this Supplementary Report should not be relied upon for any purpose. No summary of this Supplementary Report may be made without my express consent.
- 1.4.3. This Supplementary Report has been prepared on an agreed basis for the Parties in the context of the Scheme and must not be relied upon for any other purpose. No liability will be accepted by Milliman, or me, for any application of this Supplementary Report for a purpose for which it was not intended nor for the results of any misunderstanding by any user of any aspect of the Supplementary Report.

- 1.4.4. When forming my conclusions in the Main Report and this Supplementary Report concerning the effect of the Scheme on the Transferring Policyholders and other policyholders of the Parties, especially on the protection provided to the policyholders and safeguards in place under the Scheme, I have considered the Scheme in isolation while there is a chance where the situation could be changed by the Parties or by the Hong Kong branch itself as part of the normal management of the business according to the internal governance framework.
- 1.4.5. When forming my conclusions in the Main Report and this Supplementary Report concerning the effects of the Scheme on the Non-Transferring ZLIC Policyholders, that are outside the legal jurisdiction of the Hong Kong SAR, I have explicitly relied upon the professional opinions of the Appointed Actuary and Chief Actuary of ZLIC on the effects of the Scheme on the respective policyholders. While I have relied on these opinions in forming my opinion of the effects of the Scheme on the respective policyholders, based on my knowledge of ZLIC, I confirm that I have reviewed the approaches taken by the respective Actuaries in forming their opinions and consider them reasonable.
- 1.4.6. Other than as set out below, the Supplementary Report is not meant for use by any third party to do or omit to do anything and no third party should place any reliance on the Supplementary Report for that reason. This Supplementary Report and the opinions and conclusions contained herein are for the internal use of the management of the Parties, their professional advisors, their shareholders, their policyholders, regulators, and in court. With the exception of the limited distribution and disclosure of the Supplementary Report specified in paragraph below, the Supplementary Report and any written or oral information or advice provided by me or Milliman must not be reproduced, distributed or communicated in whole or in part to any other person, or be relied upon by any other person except with the written consent of me and Milliman.
- 1.4.7. If the Parties wish to release a copy of the Supplementary Report to third parties or advisors, except as provided in the engagement letter dated 22 October 2018 (the “Engagement Letter”) and noted in paragraph 1.4.8, these parties must sign a disclaimer and release letter in the form approved by Milliman setting out the terms under which the information is provided and acknowledging that neither Milliman nor I assume any responsibility, liability or duty of care to them. If the Parties wish to disclose extracts from the Supplementary Report in documents, Milliman and I need to give prior written consent to the proposed wording.
- 1.4.8. In accordance with Section 24 of the Ordinance, in respect of a sanction for the transfer of Transferring Business, the exceptions referred to above include:
- a copy of the Supplementary Report will be provided to the IA; and
  - a copy of the Supplementary Report will be made available to any person asking for one, provided that the request is made prior to an order for sanctioning the Scheme.
- 1.4.9. I have been informed that copies of this Supplementary Report will be made available on Zurich’s webpage at <https://www.zurich.com.hk/en/important-notice/portfolio-transfer> (for English) and <https://www.zurich.com.hk/zh-hk/important-notice/portfolio-transfer> (for Chinese) at least 21 days prior to the final court hearing (the “Sanctions Hearing”) and such posting will be maintained until the end of the substantive hearing of the Petition.
- 1.4.10. The use of Milliman’s name, trademarks or service marks, or reference to Milliman directly or indirectly in any media release, public announcement or public disclosure, including in any promotional or marketing materials, websites or business presentations is not authorised without Milliman’s prior written consent for each such use or release, which consent shall be given in Milliman’s sole discretion.

1.4.11. This Supplementary Report was based on data available to me and Milliman at, or prior to 30 June 2021, and takes no account of developments after that date. Neither I nor Milliman is under any obligation to update or correct inaccuracies which may become apparent in this Supplementary Report.

1.4.12. This Supplementary Report does not provide financial or other advice to individual policyholders.

**1.5. LIMITS OF LIABILITY AND LEGAL JURISDICTION**

1.5.1. This Supplementary Report is subject to the terms and limitations, including limitation of liability and legal jurisdiction, set out in the Engagement Letter.



## Section 2 Relevant Developments

### 2.1. INTRODUCTION

- 2.1.1. In this section I consider a number of developments relevant to the Scheme since the finalisation of the Main Report dated 29 March 2021.

### 2.2. SANCTION HEARING DATE

- 2.2.1. According to the court order dated 14 May 2021 issued by the Hong Kong Court, the substantive hearing of the petition for the Scheme is scheduled to be held on 9 August 2021.

### 2.3. LICENSE APPLICATION

- 2.3.1. As noted under paragraph 2.6.3 of the Main Report, ZLIHK's license application and new business process is based on a phased approach. During the initial phase, referred to as "First Phase", ZLIHK has requested approval to underwrite Class A (Life and Annuity) and Class C (Linked) long term business. Under this phase, ZLIHK has started to underwrite Class A business and manage already in-force Class C (Linked) long term business now that it has received license approval. However, no new linked business will be underwritten under this initial phase. In the following phase, referred to as the "Second Phase", ZLIHK will start underwriting Class C business upon obtaining the necessary product approvals from the regulatory bodies.
- 2.3.2. After my Main Report was finalised, the Parties informed me that the Second Phase regulatory approval was received on 1 April 2021 and ZLIHK is targeting to soft launch its new Class C product towards the end of Q2 2021.

### 2.4. HISTORICAL DIVIDEND RECOMMENDATION

- 2.4.1. As noted under paragraph 5.8.1 of the Main Report, an annual review of dividend rates for traditional participating products is performed by the Appointed Actuary and approved by the Board. My Main Report has provided an update on the dividend scales up to 2020.
- 2.4.2. The next dividend review / recommendation work will only be carried out towards the end of 2021 and, as a result, there is no update on dividend rates since my Main Report was finalised.

### 2.5. HISTORICAL CREDITING RATES

- 2.5.1. As mentioned under paragraph 5.9.1 of in the Main Report, universal life crediting rates are reviewed annually. The crediting rates are generally defined in relation to current year investment returns. The historical changes in crediting rates in general reflected the downward movement in the portfolio earned rates, mainly as a result of the low reinvestment yields of bond assets in recent years.
- 2.5.2. My Main Report has set out the historical dividend rates up to 2019, as the crediting rates for 2020 were only determined and approved by the Board after my Main Report was finalised. The changes to annual crediting rates for 2020 are summarised in Table 2.1 below.

**Table 2.1: 2020 annual crediting rates**

Year	Education Saver / Senior Protector	Juvenile 128 – 5/10/15	Old Style products	Other Living products
2020	No change	No change	Eagle: reduce by 2bps Sterling: no change USD and HKD: no change	Sterling: no change USD and HKD: no change AUD: reduce by 20bps EUR: no change

## 2.6. SWISS BOOK'S REINSURANCE ARRANGEMENT

- 2.6.1. As noted under paragraph 4.5.4 of the Main Report, the Swiss Individual Life Policies, the so-called "Swiss Book", comprise a minor portfolio issued as early as from 1972 (some 12 years before the ZLIC HK branch was established). The Swiss Book has been in run-off since 2004. During those early years, ZLIC Switzerland carried on international business by accepting business from local brokers in the Asian market, including Hong Kong. This is a portfolio of ZLIC Switzerland policies bought by expatriates in the Asia region who were expected to be moving back to their respective home countries some time in the future. After the Scheme Transfer, ZLIHK will retain the liabilities for these policies on its balance sheet but will cede the risks to ZLIC via reinsurance and outsource to ZLIC the operational activities that ZLIC was responsible for prior to the Scheme Transfer (including policy servicing, administration, payment of claims for such policies) to minimise potential immediate customer impact. ZLIHK may reassess this reinsurance and outsourcing arrangement for optimising the longer term administration of the Swiss Book during its regular operational review process.
- 2.6.2. As of 31 December 2020 and 31 March 2021 there were 140 and 137 in-force policies respectively, as compared to 142 in-force policies as of 30 September 2020.
- 2.6.3. The ZLIC reinsurance and outsourcing arrangement for the Swiss Book remains unchanged since my Main Report was finalised.

## 2.7. TRANSFERRING BUSINESS

- 2.7.1. The following table shows updated volumes of Transferring Business, determined using number of policies, total gross sum assured, total gross annualised premium and amount of net liabilities as at 31 December 2020 and 31 March 2021, and a comparison to the total volumes as at 30 September 2020 (as included in Table 4.1 of my Main Report).

**Table 2.2: Long term business of ZLIC HK branch as at 31 March 2021, 31 December 2020 and 30 September 2020**

Class	Number of policies	Total gross sum assured HKD million	Total gross annualised premium HKD million	Amount of net liabilities HKD million
<b>Portfolio as at 31 December 2020</b>				
A - life assurance participating	4,407	1,475	49	849
A - life assurance non-participating	20,974	6,756	129	1,857
A - annuities	3	1	-	7
C - linked	13,427	4,598	107	1,730
<b>Total (as at 31 December 2020)</b>	<b>38,811</b>	<b>12,829</b>	<b>286</b>	<b>4,443</b>

Class	Number of policies	Total gross sum assured HKD million	Total gross annualised premium HKD million	Amount of net liabilities HKD million
<b>Portfolio as at 31 March 2021</b>				
A - life assurance participating	4,386	1,470	49	706
A - life assurance non-participating	20,695	6,654	127	1,691
A - annuities	3	1	-	7
C - linked	13,058	4,508	105	1,674
<b>Total (as at 31 March 2021)</b>	<b>38,142</b>	<b>12,632</b>	<b>281</b>	<b>4,078</b>
<b>Total (as at 30 September 2020)</b>	<b>39,471</b>	<b>12,860</b>	<b>292</b>	<b>4,246</b>

- 2.7.2. As at 31 December 2020, Class A life participating business comprised 4,343 whole of life policies, 46 endowment policies and 18 term policies. Non-participating Class A life assurance business comprised 7,956 endowment policies, 13,015 term policies and 3 refundable plans. Class C business comprised 12,452 whole of life policies and 975 endowment policies as at 31 December 2020.
- 2.7.3. As at 31 March 2021, Class A life participating business comprised 4,324 whole of life policies, 44 endowment policies and 18 term policies. Non-participating Class A life assurance business comprised 7,846 endowment policies, 12,846 term policies and 3 refundable plans. Class C business comprised 12,126 whole of life policies and 932 endowment policies as at 31 March 2021.
- 2.7.4. The change in figures from 30 September 2020 to 31 December 2020 and subsequently to 31 March 2021 is in line with the run-off trend of ZLIC HK branch's portfolio.

## 2.8. NON-TRANSFERRING BUSINESS

- 2.8.1. The comparison of the in-force portfolios of ZLIC and its Hong Kong branch as at 31 December 2020 and 31 March 2021, set out in the table below, show that the ZLIC HK branch portfolio represents a very small proportion of its parent's overall business.

**Table 2.3: In-force portfolio of ZLIC as at 31 December 2020 and 31 March 2021**

Statistical data	ZLIC Total	Hong Kong branch	Percentage
<b>Business volume as at 31 December 2020</b>			
Number of policies (number of insured for corporate life and pension business) (in million)	1.84	0.039	2.1%
Gross written premiums (GWP) and policy fees (in CHF million)	1,861	36	1.9%
Insurance reserves, gross and provisions for unit-linked contracts (in CHF million)	19,335	503	2.6%

Statistical data	ZLIC Total	Hong Kong branch	Percentage
<b>Business volume as at 31 March 2021</b>			
Number of policies (number of insured for corporate life and pension business) (in million)	1.87	0.038	2.0%
Gross written premiums (GWP) and policy fees (in CHF million)	722	8	1.1%
Insurance reserves, gross and provisions for unit-linked contracts (in CHF million)	19,469	492	2.5%

Source: ZLIC internal non-public information

## 2.9. EXISTING BUSINESS OF ZLIHK

2.9.1. ZLIHK started issuing term policies in July 2020. The following table shows updated volumes of Existing Business of ZLIHK as at 31 December 2020 and 31 March 2021, and a comparison to the total volumes as at 30 September 2020 (as included in Table 9.1 of my Main Report)

**Table 2.4: Long term business of ZLIHK as at 31 March 2021, 31 December 2020 and 30 September 2020**

Class	Number of policies	Total gross sum assured HKD million	Total gross annualised premium HKD million	Amount of net liabilities HKD million
<b>Business volume as at 31 December 2020</b>				
A - life assurance participating	-	-	-	-
A - life assurance non-participating	33	156	0.273	14.006
A - annuities	-	-	-	-
C - linked	-	-	-	-
<b>Total (as at 31 December 2020)</b>	<b>33</b>	<b>156</b>	<b>0.273</b>	<b>14.006</b>
<b>Business volume as at 31 March 2021</b>				
A - life assurance participating	-	-	-	-
A - life assurance non-participating	51	233	0.458	14.051
A - annuities	-	-	-	-
C - linked	-	-	-	-
<b>Total (as at 31 March 2021)</b>	<b>51</b>	<b>233</b>	<b>0.458</b>	<b>14.051</b>
<b>Total (as at 30 September 2020)</b>	<b>13</b>	<b>63</b>	<b>0.103</b>	<b>0.103</b>

2.9.2. As at 31 December 2020 and 31 March 2021, all new business written by ZLIHK was term insurance, in line with the company's original product roadmap.

## 2.10. BUSINESS PLAN OF ZLIC HK BRANCH AND ZLIHK

2.10.1. Since the finalisation of my Main Report, the Parties have produced 2021 business plans, separately for ZLIC HK branch and ZLIHK standalone (i.e. before incorporating the Transferring Business) for submission to the IA. The Parties have also produced a 2021 business plan for ZLIHK after incorporating Transferring Business for my review. The ZLIHK business plan referred to in this Report includes Transferring Business, unless otherwise is specified.

### ZLIC HK branch's business plan

2.10.2. For the ZLIC HK branch 2021 business plan, the Parties projected cash flows using the actual in-force portfolio as at 31 December 2020 and the latest best estimate assumptions. The key assumption changes relate to lower valuation interest rate/investment return (reflecting the reduction in market yields) and the updated expense assumptions derived from the latest budget. The projected solvency position in ZLIC HK branch's 2021 business plan is shown in Table 2.5.

**Table 2.5: ZLIC HK branch's projected 2021-2023 year-end solvency position**

(In HKD million)	2020 Actual	2021 Plan	2022 Plan	2023 Plan
Net Assets	569	621	680	741
Solvency Margin	121	120	118	117
<b>Solvency Ratio</b>	<b>472%</b>	<b>519%</b>	<b>576%</b>	<b>631%</b>

2.10.3. The ZLIC HK branch's 2020 year-end solvency ratio of 472% was lower than the 579% projected in the branch's 2020 business plan, mainly due to the year-end yield curve being lower than expected. Based on the ZLIC HK branch's 2021 business plan the 2021-2023 solvency position is projected to be around 520%-630%, which is at a slightly lower level than shown in the previous 2020 business plan. The projected solvency ratios are still significantly higher than ZLIC HK branch's internal target solvency ratio range of 200%-250% as prescribed in the branch's capitalisation policy.

### ZLIHK's business plan

2.10.4. In my Main Report, ZLIHK's business plan is the same as ZLIHK license application business plan submitted to the IA in 2 January 2020, except for first projection year which was updated to reflect the movement of the Transfer Date to 1 September 2021. This business plan incorporated Transferring Business starting from 1 September 2021.

2.10.5. The Parties have informed me that, due to recent COVID-19 pandemic, there will be a slight delay in launching various products, although the overall roadmap remains the same. The Parties have also informed me that for Class A business, ZLIHK will launch a new critical illness protection product by Q3 2021 and will continue monitoring Qualifying Deferred Annuity Policy ("QDAP") market developments, assessing the possibility of launching such a retirement solution in the future. After my Main Report was finalised, the Parties informed me that the regulator's approval for underwriting Class C business was received on 1 April 2021 and ZLIHK is targeting to soft launch its new Class C product towards the end of Q2 2021.

2.10.6. In the ZLIHK 2021 business plan, the Parties have updated new business sales to reflect the delays in product launches, and shifted the product mix predominantly to Class C business which has less new business strain. The new business sales projections for 2021 business plan and 2020 business plan (as shown in the Main Report) are separately shown in Table 2.6 and Table 2.7.

**Table 2.6: ZLIHK's 2021 business plan projected new business sales**

NB APE (HKD million)	2020 Actual	2021 Plan	2022 Plan	2023 Plan
Term protection	0.3	0.6	1.0	1.4
ILAS	0.0	34.5	60.3	118.2
Critical illness protection	0.0	1.5	5.4	21.1
<b>Total NB*</b>	<b>0.3</b>	<b>36.5</b>	<b>66.7</b>	<b>140.7</b>

\* Figures derived from this table may not be the same due to rounding.

**Table 2.7: ZLIHK's 2020 business plan projected new business sales**

NB APE (HKD million)	2020 Plan	2021 Plan	2022 Plan
Term protection	4.0	8.0	11.2
ILAS	5.0	30.0	39.0
Critical illness protection	2.5	3.0	3.3
QDAP	0.0	3.0	4.8
<b>Total NB*</b>	<b>11.5</b>	<b>44.0</b>	<b>58.3</b>

\* Figures derived from this table may not be the same due to rounding.

2.10.7. Under ZLIHK's 2021 business plan, the solvency ratios after the Transfer have been projected to be in the range of 490%-635% as shown in Table 2.8.

**Table 2.8: ZLIHK's projected 2021-2023 year-end solvency position**

(In HKD million)	2020 Actual	2021 Plan*	2022 Plan	2023 Plan
Net Assets	249	771	707	615
Solvency Margin	2	122	121	125
<b>Solvency Ratio</b>	<b>12459%</b>	<b>634%</b>	<b>586%</b>	<b>493%</b>

\* By the end of 2021, the ZLIC HK branch portfolio is expected to be transferred to ZLIHK.

2.10.8. ZLIHK's 2020 year-end solvency ratio of 12459% was higher than the 9438% projected in ZLIHK's 2020 business plan. This is due to actual 2020 new business sales being lower than expected, as a result of the product launch delay explained in paragraph 2.10.5. The Parties have also informed me that the updated ZLIHK's solvency ratio as at 31 March 2021 was 10893%, with the reduction from the year-end position being caused by losses in Q12021. ZLIHK's very high pre-Transfer solvency ratio of over 1000% is caused by the significant initial capital injection and the fact that there is very little in-force business prior to the Transfer. The 2021-2023 projected solvency ratios after the Transfer of around 490%-635%, are similar to the levels projected in ZLIHK's 2020 business plan. The projected solvency ratios are significantly higher than ZLIHK's internal target capital requirement of 225%, as prescribed in the company's capitalisation policy.

- 2.10.9. ZLIHK and ZLIC HK branch business plans show an opposite trend in projected future solvency ratios, mainly due to the inclusion of future new business in the former but not the latter. The same observation has been made based on the previous year's business plans in my Main Report. Both business plans include the future profits expected from the run-off of in-force business but the new business strain caused by future sales only impacts the ZLIHK projection.
- 2.10.10. As mentioned in Paragraph 6.12.4 of my Main Report, I have been informed by the Parties that if ZLIC HK branch's solvency ratio is below 200%, the branch will seek capital support from ZLIC to raise its solvency ratio back above 200%. Similarly, if ZLIHK's solvency ratio is below 200%, or if it is anticipated that the solvency ratio will likely fall below 200% measured on the local statutory basis, it will seek assistance from Zurich Group to raise solvency capital or for a capital injection from ZIC via ZIH, the shareholder of ZLIHK. In addition, I have been informed by the Parties that there was a letter of undertaking from ZLIHK to the IA when the license was issued, which specifies a parental commitment to maintain ZLIHK's solvency ratio of at least 150% of the statutory minimum solvency margin.

## 2.11. KEY RISKS OF THE ZLIC HK BRANCH AND ZLIHK

- 2.11.1. The ZLIC HK branch conducts Dynamic Solvency Testing ("DST") calculations at the end of every financial year as prescribed under AGN7 issued by the Actuarial Society of Hong Kong and required by the IA, with the aim to project the likely solvency of the company under a range of adverse scenarios over a three-year projection period.
- 2.11.2. The 2021 DST report of ZLIHK is on a standalone basis, before incorporating the Transferring Business. The Parties have also produced the ZLIHK's DST calculation after incorporating Transferring Business for my review. The ZLIHK's DST results referred to in this Report include Transferring Business, unless otherwise is specified.
- 2.11.3. As noted under paragraph 6.6 of my Main Report, I made reference to the DST results of both of the ZLIC HK branch and ZLIHK as at 31 December 2019 when I formed my opinion in the Main Report.
- 2.11.4. After finalising the Main Report, I have been provided with the DST results of the ZLIC HK branch and ZLIHK as at 31 December 2020 and have the following observations:
- ZLIC HK branch and ZLIHK's base scenarios have been set to follow their respective business plans. Under the base scenarios, the projected solvency ratios of both ZLIC HK branch and ZLIHK are significantly higher than the respective target capital requirements throughout the projection period, being 200%-250% for ZLIC HK branch and 225% for ZLIHK as prescribed in their specific capitalisation policies.
  - Whilst the scenarios used for the 2020 DST exercise are generally in line with those used for the 2019 DST exercise, the Appointed Actuary of ZLIHK has revisited some of the compound scenarios ("CS") and additional plausible adverse scenarios ("PAS"). For these scenarios, small changes have been made such that the scenarios more closely follow Actuarial Guidance Note 7 ("AGN7"). In addition, the "COVID-19" scenario (PAS 4) in 2019 DST was replaced with two additional scenarios prescribed by the IA, being "Flat economics" scenario (PAS 4) and "Combined scenario of drop in interest rate, a market crash and flat economics" (PAS 5).
  - Under all the prescribed scenarios ("PS"), compound scenarios and plausible adverse scenarios, both ZLIC HK branch and ZLIHK remain financially strong with solvency ratios being at least 280% throughout the projection period, which are well above the minimum required level of solvency ratio of 150%.
  - As was the case with the 2019 DST results, the 2020 DST results show the ZLIC HK branch and ZLIHK are facing the same key risks.

- The 2020 DST results highlight that the main risk for both ZLIC HK branch and ZLIHK is interest rate related, followed by credit spread widening and lapse risk. Similar to the 2019 DST results, the top three worst scenarios in 2020 DST results for both ZLIC HK branch and ZLIHK are “Interest rate down” scenario (PS 3), “Medium term deflationary” scenario (CS 3) and “Combined scenario of drop in interest rate, a market crash and flat economics” (PAS 5). All these scenarios have assumed an interest rate down shock. Following these three scenarios, the next two scenarios which show the largest adverse impact for both ZLIC HK branch and ZLIHK are “Credit spread widening” scenario (PAS 3) and “Lapse down” scenario (PS 2).

2.11.5. When comparing 2020 DST report against the 2019 DST report, other than the scenarios that have been adjusted and hence show different results, generally the observations and conclusions made in both reports are very similar.

2.11.6. On top of the updated statistics of the ZLIC HK branch’s business and DST results, I am informed by the Appointed Actuaries and Chief Actuaries of the ZLIC HK branch that the risk profile of the branch as at the end of 2020 and 31 March 2021 has not changed significantly compared to year-end 2019. The Appointed Actuary of ZLIHK has made the same observation for ZLIHK’s portfolio.

2.11.7. My conclusions stated in the Main Report are not affected by the abovementioned updated statistics and DST analysis.

## **2.12. RISK PROFILE OF ZLIC, ZLIC HK BRANCH AND ZLIHK**

2.12.1. The Appointed Actuary and Chief Actuary of ZLIC have confirmed there is no material change in risk profile of ZLIC since 30 September 2020.

2.12.2. The Appointed Actuary of ZLIC HK branch has confirmed that as the business of ZLIC HK branch has been in run-off since 2013, the risk profile of the company remains generally unchanged over time.

2.12.3. ZLIHK started selling new term policies in July 2020 and only has a very small number of new term policies.

2.12.4. I am satisfied that there is no material change in the risk profile which affects the conclusion made in paragraph 6.9.8 in the Main Report.

## **2.13. CAPITALISATION POLICY, RESERVING POLICY AND OTHER COMPANY GOVERNANCE**

2.13.1. The Parties have confirmed that there is no change to the capitalisation policies, reserving policies and other internal governance of the Parties since the finalisation of my Main Report. In particular, the Parties have confirmed that the reserving and valuation interest rate setting methodology of ZLIC HK branch and ZLIHK used for 31 December 2020 and 31 March 2021 is the same as the one used for 30 September 2020.

## **2.14. LATEST PROGRESS ON PORTFOLIO TRANSFER TIMELINE OF OTHER HONG KONG BRANCHES**

2.14.1. I have been informed that there is an aspiration to transfer of the long term business of Zurich Assurance Ltd. HK branch into ZLIHK in the future, however, this process has not begun and there is currently no operational plan for such a project. Since the portfolio transfer of this Hong Kong branch is likely to take a long period of time, the conclusions set out in my Main Report are not affected by this potential future transfer.



**2.15. PROFESSIONAL OPINION OF THE APPOINTED ACTUARY AND CHIEF ACTUARY OF ZLIC**

- 2.15.1. When forming my opinion on the effects of the Scheme on the Non-Transferring ZLIC Policyholders on their reasonable expectations with regard to benefits and levels of service, as well as their financial security, as concluded under Section 8.6 of the Main Report, I have relied upon the professional opinion of the Appointed Actuary and Chief Actuary of ZLIC.
- 2.15.2. The Appointed Actuary and Chief Actuary of ZLIC have confirmed that their opinion has not changed since my Main Report.

**2.16. PROFESSIONAL OPINION OF THE APPOINTED ACTUARY OF ZLIHK**

- 2.16.1. When forming my opinion on the effects of the Scheme on the Existing ZLIHK Policyholders on their reasonable expectations with regard to benefits and levels of service, as well as their financial security, as concluded under Section 9.6 of the Main Report, I have relied upon the professional opinion of the Appointed Actuary of ZLIHK.
- 2.16.2. The Appointed Actuary ZLIHK has confirmed that his opinion has not changed since my Main Report.

**2.17. CONCLUSION**

- 2.17.1. I am satisfied that none of the above developments affects the conclusions of my Main Report, which are restated in Section 6 of this Supplementary Report, either individually or in aggregate. The financial positions of the Parties are considered in further detail in Section 3 of this Supplementary Report.

## Section 3 The Updated Financial Position as at 31 December 2020 and 31 March 2021

### 3.1. INTRODUCTION

- 3.1.1. In order to form an opinion on the potential effect on the financial security of the Transferring Policyholders, I have considered the actual solvency position of the Parties as well as the expected overall solvency position of ZLIHK based on related information available under both HKIO and SST bases under my Main Report. This section describes the updated solvency position of the Parties as at 31 December 2020 and 31 March 2021, the most recent dates for which financial results are available at the date of this Supplementary Report. More data is available at 31 December 2020 given this is the financial year end for the Parties, while only partial unaudited data is available as at 31 March 2021.
- 3.1.2. In general, having a higher solvency ratio and more capital in excess of required capital is beneficial to financial security, but it should be noted that the excess capital could potentially be removed in the future according to the capitalisation policies considered in my Main Report. In the case where the Transferring Policies have moved to an entity with a lower solvency ratio but the ratio is still well above the Zurich Group requirements, and the new subsidiary has a similar capitalisation policy in place versus the parent before Scheme, I would not necessarily consider this will bring materially adverse impact to the Transferring Policyholders.
- 3.1.3. The solvency positions of the Parties as at 31 December 2020 and 31 March 2021 as well as the projected solvency positions of ZLIHK have been either submitted to relevant regulators, subject to independent external audit or subject to internal review, hence I consider it is reasonable to rely on the results in revisiting the conclusions from my Main Report.

### 3.2. ACTUAL SOLVENCY POSITIONS

- 3.2.1. The solvency ratios of ZLIC HK branch as at 31 December 2020 and 31 March 2021 have been made available since the finalisation of my Main Report. Table 3.1 shows the updated solvency ratio of ZLIC HK branch as at 31 December 2020 and 31 March 2021 on the HKIO basis together with the historical solvency position of ZLIC HK branch on the HKIO basis. The Parties have informed me that the increase in the solvency ratio from 420% to 472% and subsequently 579% during the period of September 2020 to the year-end and then March 2021 is mainly due to continued rising interest rates and favourable equity performance during this period. The ZLIC HK branch's solvency positions as at 31 December 2020 and 31 March 2021 have improved since 30 September, while still broadly comparable with the one as at 30 September 2020 and previous years (except December 2017).

**Table 3.1: ZLIC HK branch's solvency ratios (on HKIO basis)**

HKD million	Dec 2017	Dec 2018	Dec 2019	Sep 2020	Dec 2020	Mar 2021
Solvency margin	103	102	106	121	121	110
Net assets	945	498	556	507	569	635
Letter of Credit (LoC)	40	0	0	0	0	0
<b>Solvency ratio (Including LoC)*</b>	<b>956%</b>	<b>489%</b>	<b>523%</b>	<b>420%</b>	<b>472%</b>	<b>579%</b>

\* Figures derived from this table may not be the same due to rounding.

- 3.2.2. ZLIC, the parent company of ZLIC HK branch, is incorporated in Switzerland in which the solvency is subject to SST framework for determining the risk based capital. The historical solvency position of ZLIC up to 31 March 2021 on the SST basis is shown below.

**Table 3.2: ZLIC's solvency ratios (on SST basis)**

CHF millions	Dec 2017	Dec 2018	Dec 2019	Sep 2020**	Dec 2020	Mar 2021**
Target capital	2,858	3,286	4,524	4,601	4,278	4,214
Risk-bearing capital	5,989	7,002	7,635	7,749	7,907	8,134
Market value margin	778	820	1,409	1,453	1,333	1,293
<b>Solvency ratio*</b>	<b>251%</b>	<b>251%</b>	<b>200%</b>	<b>200%</b>	<b>223%</b>	<b>234%</b>

\* Figures derived from this table may not be the same due to rounding.

\*\* The number is not required by FINMA. It has not been reviewed by FINMA and is an estimate by ZLIC.

Source: ZLIC internal non-public information for the estimated SST figures as at September 2020 and March 2021.

- 3.2.3. ZLIC's SST solvency ratio increased from 200% to 223% and subsequently 234% during the period of September 2020 to the year-end and then March 2021. The Parties have informed me that the increase is a net combined impact from the key positive factors including the use of new FINMA Standard Model for credit risk by ZLIC and favourable economic experience in Q42020 and Q12021, being slightly offset by the planned dividend payment made in April 2021.
- 3.2.4. ZLIC HK branch has estimated the solvency position of the entire ZLIC legal entity under HKIO basis for the purpose of this transfer. The HKIO solvency ratio of ZLIC has been estimated by the Parties based on the same approximation approach mentioned in paragraph 6.5.5 of my Main Report. Table 3.3 shows the updated approximated solvency ratio of ZLIC as at 31 December 2020 and 31 March 2021 on the HKIO basis together with the historical approximated solvency position of ZLIC on the HKIO basis. The ZLIC's solvency positions as at 31 December 2020 and 31 March 2021 are broadly comparable with the position as at 30 September 2020 and the previous years.

**Table 3.3: ZLIC's solvency ratios (on HKIO basis)**

CHF million	Dec 2017	Dec 2018	Dec 2019	Sep 2020**	Dec 2020	Mar 2021**
Solvency margin	960	990	1,019	1,011	1,008	1,008
Net assets	3,505	3,122	3,609	3,436	3,410	3,525
<b>Solvency ratio*</b>	<b>365%</b>	<b>315%</b>	<b>354%</b>	<b>340%</b>	<b>338%</b>	<b>350%</b>

\* Figures derived from this table may not be the same due to rounding.

\*\* Derived based on ZLIC internal non-public information.

- 3.2.5. ZLIC's solvency ratio on HKIO basis has reduced marginally from 340% as at September 2020 to 338% as at 2020 year-end, and increased to 350% as at March 2021. The Parties have informed me that the Q42020 reduction was due to offsetting impact between the positive investment performance and reserve strengthening plus lower unrealised capital gain mainly related to the sales of real estate in Q42020, whereas the Q12021 increase was due to the increase in shareholder's equity attributed to Q12021 net income after tax
- 3.2.6. ZIC the ultimate parent of ZLIHK, the holding company for is also the parent of ZLIC. ZIC, similar to ZLIC is incorporated in Switzerland in which the solvency is subject to SST framework for determining the risk based capital. The historical solvency position of ZIC on the SST basis up to 31 December 2020 is shown in below.

**Table 3.4: ZIC's solvency ratios (on SST basis)**

USD billions	Dec 2017	Dec 2018	Dec 2019 (Restated)	Dec 2020**
Target capital	24.6	22.3	25.7	32.0
Risk-bearing capital	43.2	41.6	46.6	50.2
<b>Solvency ratio*</b>	<b>212%</b>	<b>225%</b>	<b>219%</b>	<b>181%</b>

\* Figures derived from this table may not be the same due to rounding.

\*\*No updated information available after December 2020 as ZIC's solvency ratio is only calculated annually.

Dec 2019's SST ratio has been restated in 2020 Financial Condition Report ("FCR").

Source: ZIC's 2018, 2019 and 2020 Financial Condition Report.

- 3.2.7. ZIC's SST solvency ratio reduced from 219% as at December 2019 to 181% as at 2020 year-end. ZIC's 2020 FCR sets out the explanation for factors behind the change, whereby key positive factors are related to strong operational capital generation, whilst the key negative factors include COVID-19 related losses and catastrophes, unfavourable market movements and update of risk parameters as well as dividend accrual.
- 3.2.8. The Parties have informed me that ZIC's SST ratio is not calculated as at Q12021. They have, however, provided historical SST ratios of its parent company, Zurich Insurance Group Ltd. ("ZIG"), which show close alignment with the historical SST ratios of ZIC (as shown in Table 3.5), due to the fact that ZIC is the main operating carrier of the ZIG. ZIG's SST ratio is available as at Q12021, when it increased to 201% from 182% as at 2020 year-end. If the close alignment of ZIG and ZIC solvency ratios continues in 2021 then the latter is likely to have improved in the first quarter of 2021. In addition, the SST regime is very prudent, based on a 99% expected shortfall which is slightly more stringent than a 99.5% value at risk confidence level. Therefore in my view, ZIC remains to be in a strong solvency position.

**Table 3.5: ZIG and ZIC's historical solvency ratios (on SST basis)**

	Dec 2017	Dec 2018	Dec 2019*	Dec 2020	Mar 2021
ZIG	216%	221%	222%	182%	201%
ZIC	212%	225%	219%	181%	N/A

\* The ratios have been restated due to a model change introduced in 2020 and approved by the Swiss regulator FINMA.

### 3.3. PROJECTED SOLVENCY POSITIONS

- 3.3.1. The Parties have produced 2021 business plans since my Main Report was finalised. The updated ZLIHK's solvency position as at the Transfer Date and the projected solvency ratios are shown in Table 3.6 and Table 3.7 respectively.

**Table 3.6: ZLIHK's solvency position (on HKIO basis) as at 1 September 2021**

HKD million	Pre-transfer	Transfer	Post-transfer
Solvency margin	2	120	122
Net assets	186	604	790
<b>Solvency ratio *</b>	<b>9285%</b>	<b>503%</b>	<b>647%</b>

\* Figures derived from this table may not be the same due to rounding.

**Table 3.7: ZLIHK's projected solvency ratios (on HKIO basis)**

HKD million	31 Dec 2021**	31 Dec 2022	31 Dec 2023
Solvency margin	122	121	125
Net assets	771	707	615
<b>Solvency ratio*</b>	<b>634%</b>	<b>586%</b>	<b>493%</b>

\* Figures derived from this table may not be the same due to rounding.

\*\*By the end of 2021, the ZLIC HK branch portfolio is expected to be transferred to ZLIHK

- 3.3.2. The solvency ratios of ZLIHK are projected to be around 490%-635%, which is at the similar level as those from ZLIHK's 2020 business plan i.e. 530%-600% as set out in my Main Report.
- 3.3.3. The Parties have confirmed that ZLIHK's paid-in capital which was previously being invested in short term fixed deposits, has recently been invested in short-term bonds and money market funds. The funds have not been materially affected by the capital market volatility resulting from the COVID-19 pandemic.
- 3.3.4. As noted under paragraph 6.5.9 of the Main Report, I have been informed by the Parties that if ZLIHK's solvency ratio is below 200%, or if it is anticipated that ZLIHK's solvency ratio will likely fall below 200% measured on the local statutory basis, it will seek assistance from Zurich Group to raise solvency capital or for a capital injection from ZIC via ZIH, the shareholders of ZLIHK, to meet the target solvency ratio.
- 3.3.5. I have compared the historical solvency position of the branch's parent ZLIC against the historical solvency position of the ultimate parent of ZLIHK, which is ZIC. I consider this financial strength comparison at the parent level to be a secondary comparison, whilst the primary financial strength comparison is between ZLIC and ZLIHK. Although it is noted that the ZIC's solvency ratio has reduced from December 2019 to December 2020, as observed from Table 3.2 and Table 3.4, the solvency positions of both of the entities are similar, which are in the range of around 180% to 250% for 2017 to December 2020, implying the financial strength of both entities have been broadly comparable.

- 3.3.6. As mentioned in my Main Report, I have focused on the comparison of the projected solvency position of the ZLIHK after the Scheme is implemented against the latest estimated solvency position of ZLIC under HKIO basis, since the results under the SST basis are not available for ZLIHK. As observed from Table 3.3 and Table 3.7, similar to the results as at 30 September 2020, the projected solvency ratio of ZLIHK post-Scheme is higher than the approximated solvency ratios of ZLIC under HKIO basis as at 31 December 2020 and 31 March 2021, which is favourable for the financial security of the Transferring Policyholders.

### **3.4. CONCLUSION**

- 3.4.1. Similar to the results as at 30 September 2020, the projected HKIO basis solvency ratio of ZLIHK post-Scheme is higher than the estimated solvency ratio of ZLIC as at 31 December 2020 and 31 March 2021, which is favourable for the financial security of the Transferring Policyholders.
- 3.4.2. Based on the above comparison, my opinion that there will be no materially adverse impact to the financial security of the Transferring Policyholders following the implementation of the Scheme does not change.

## Section 4 Correspondence and Questions Received from the Transferring Policyholders

### 4.1. OVERVIEW

- 4.1.1. The Parties have received enquiries and comments on the Scheme from the Transferring Policyholders (either directly or through their representatives).
- 4.1.2. As at 30 June 2021, I have not received any correspondence regarding the Scheme directly from the Transferring Policyholders.

### 4.2. COMPLAINTS AND ENQUIRES

- 4.2.1. As at 30 June 2021, the Parties received no formal complaints concerning the Scheme.
- 4.2.2. The Parties have provided me with a log of the enquiries raised by the Transferring Policyholders (either directly or through their representatives) in respect of the Scheme. The enquires are mainly general in nature, covering the following aspects:
  - Clarification on the scope, rationale and mechanism of the Transfer;
  - Clarification on the impact of the Transfer;
  - Further information on ZLIHK, including its background, corporate structure, legal status and financial position;
  - Latest solvency position of ZLIHK;
  - Clarification on any direct positive benefit to Transferring Policyholders upon the Transfer;
  - Clarification on any impact on the general insurance policy of a Transferring Policyholder; and
  - Request for full inspection documents (i.e. the Petition, the Scheme and the IA Report together with its Erratum).
- 4.2.3. At the time of issue of this Report there was only one Transferring Policyholder who has indicated a preference to keep his policy under ZLIC, however he has not lodged a formal objection to the Transfer.
- 4.2.4. The Parties have informed me that the abovementioned enquires have been addressed and the responses made to the Transferring Policyholders have been provided to me. I have no concern with any of the Parties' policyholder responses.

### 4.3. OBJECTIONS

- 4.3.1. At the time of writing this Supplementary Report, there have been no written or oral objections made by the Transferring Policyholders in respect of the Scheme.

## Section 5 Other Considerations Arising from the Scheme

### 5.1. THE POLICYHOLDER COMMUNICATION PROCESS

- 5.1.1. I have been informed that the Parties published notices of the proposed Scheme in a form approved by the IA:
- Once in the Hong Kong Government Gazette, in both English and Chinese;
  - Once in The Standard, in English; and
  - Once in the Sing Tao Daily, in Chinese.
- 5.1.2. As noted in Section 10.3 of my Main Report, the Parties applied for a waiver in respect of the notifications to the Non-Transferring ZLIC Policyholders, whereby 99% of the policyholders located outside Hong Kong. This was dispensed by the Hong Kong Court through the court orders dated 14 May 2021.
- 5.1.3. In addition to the English version of the Main Report, the summary of the Main Report and the Supplementary Report, the Chinese versions of these three reports are also made available. The summary of the Scheme and Main Report shall be included under the statutory statement sent to the Transferring Policyholders.
- 5.1.4. The Parties sent direct communications to the Transferring Policyholders and ZLIHK Policyholders, by sending the statutory statement, both in English and Chinese versions to the registered and last known address of each of the Transferring Policyholder on 28 February 2021, to notify them of the transfer. The statutory statement is also accessible at Zurich's website <https://www.zurich.com.hk/en/important-notice/portfolio-transfer>.
- 5.1.5. The recipients of the statutory statement include:
- each Transferring Policyholder whose Transferring Policy(ies) is/are in force as at 28 February 2021;
  - each Transferring Policyholder whose Transferring Policy(ies) has/have expired, terminated, matured or surrendered as at 28 February 2021 but who has claims or payments outstanding under such policy(ies) or from whom a notice of claim has been received by ZLIC;
  - each Transferring Policyholder whose Transferring Policy(ies) has/have lapsed as at 28 February 2021, but such policy(ies) are still capable of being reinstated under a reinstatement option (if any) under the policy(ies) (such reinstatement period being 2 years from the lapse date);
  - each Transferring Policyholder whose Transferring Policy(ies) has/have lapsed as at 28 February 2021 due to non-payment of premiums, but as at such date the policy(ies) is/are still providing a post-termination cover (which is the payment of a benefit if death of the insured occurs within 100 days after the lapse date); and
  - each long term policyholder of ZLIHK ("ZLIHK Policyholders") whose policies is/are in force as at 28 February 2021 to be in line with Petition
- 5.1.6. Any policyholder of ZLIC and ZLIHK who wishes to enquire about the Scheme may as soon as possible and before 17 June 2021 send such enquiry in writing to the Customer Service Centre and call the Zurich telephone hotline dedicated for this portfolio transfer.
- 5.1.7. Overall, the Transferring Policyholders and other interested parties have been, and are currently, able to obtain information on the Scheme from Zurich's website. The available documents include the full Scheme document, my Main Report, statutory statement which includes communication letter sent to Transferring Policyholders, the Supplementary Report and petition submitted to the Hong Kong Court.



## Section 6 Conclusions

I have considered relevant developments brought to my attention by the Parties since the completion of my Main Report. I have not changed my conclusions regarding the likely effects of the Scheme.

Accordingly I remain satisfied that:

- The Scheme will not have a materially adverse effect on the reasonable expectations of the policyholders of ZLIC and ZLIHK, and in particular the Transferring Policyholders of ZLIC HK branch, with regards to benefits and levels of service.
- The Scheme will not have a materially adverse effect on the financial security of the policyholders of ZLIC and ZLIHK, and in particular the Transferring Policyholders of ZLIC HK branch.
- I am satisfied that the proposed Scheme provides sufficient safeguards to ensure that the Scheme operates as presented.



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Paul Sinnott

Fellow of the Institute and Faculty of Actuaries (FIA)

Independent Actuary

30 June 2021

## Appendix A Key Sources of Data

In addition to discussions (both verbally and electronically) with staff and management of the Parties during the period of our assignment, I have relied upon the principal documents listed in Appendix B of my Main Report and the following principal documents in formulating my conclusions:

### Documents related to the Scheme

- A1. Sealed copy of the Order before High Court Madam Justice Linda Chan in Chambers, which includes the Statutory Notice and the Statutory Statement (setting out the terms of the Scheme, and containing the final policyholder communication pack issued by both the ZLIC HK branch and the ZLIHK to Transferring Policyholders and ZLIHK Policyholders and a summary of the Main Report), dated 14 May 2021.
- A2. The Scheme pursuant to section 24 of the Ordinance (CAP 41) for the transfer of the long term life insurance business from the ZLIC HK branch to the ZLIHK, as filed with the Hong Kong Court, dated 8 April 2021.
- A3. Draft Business Transfer Agreement entered into between ZLIC and ZLIHK in relation to the transfer of life insurance business from the ZLIC HK branch to the ZLIHK, dated 28 April 2021.
- A4. The report entitled "Appointed Actuary's Report for ZLIC – Transfer of ZLIC Hong Kong branch business to Zurich Life Insurance (Hong Kong) Limited" dated 30 April 2021.
- A5. The report entitled "Appointed Actuary's Report for ZLIC HK branch – Transfer of ZLIC Hong Kong branch business to Zurich Life Insurance (Hong Kong) Limited dated 4 May 2021
- A6. A list of policyholders' general enquiries and document requests with respect to the Scheme and the Parties' response.

### ZLIC

- A7. Solvency position of ZLIC under SST basis as at 31 December 2020 and estimated SST figures of ZLIC as at 31 March 2021.
- A8. Estimated solvency position of ZLIC under HKIO basis as at 31 December 2020 and 31 March 2021.

### ZIC

- A9. Solvency position of ZIC under SST basis as at 31 December 2020.
- A10. Additional information regarding historical solvency positions of ZIG under SST basis up to 31 March 2021.

### ZLIC HK branch

- A11. Audited accounts and financial statements of the ZLIC HK branch as at 31 December 2020 and unaudited accounts and financial statements of the ZLIC HK branch as at 31 March 2021.
- A12. 2021 business plan and projected solvency positions of ZLIC HK branch before the Transfer under HKIO basis as at the Transfer Date
- A13. Dynamic Solvency Testing report showing solvency position of the ZLIC HK branch before transfer, as at 31 December 2020.
- A14. In-force business summary, including number of treaties, gross premium and reserve as at 31 December 2020 and 31 March 2021.
- A15. Solvency position of ZLIC HK branch under HKIO basis as at 31 March 2021.

## ZLIHK

- A16. Formal certificate of authorisation granted by the regulatory bodies to ZLIHK to carry out specific classes of long term business, dated 23 March 2020 and 1 April 2021 respectively.
- A17. Audited accounts and financial statements of the ZLIHK as at 31 December 2020 and unaudited accounts and financial statements of the ZLIHK as at 31 March 2021.
- A18. Projected solvency positions of ZLIHK, before and after the Transfer under HKIO basis as at the Transfer Date
- A19. 2021 business plan and DST results, on a standalone basis (before incorporating the Transferring Business), as at 31 December 2020, per submission to the IA.
- A20. 2021 business plan and DST results, after incorporating the Transferring Business, as at 31 December 2020
- A21. In-force business summary, including number of treaties, gross premium and reserve as at 31 December 2020 and 31 March 2021.

## Appendix B Dynamic Solvency Testing (“DST”) Results and Assumptions

### B.1 INTRODUCTION

B.1.1. In this appendix I present the DST results of ZLIC HK branch and ZLIHK under different scenarios.

### B.2 SOLVENCY POSITION

**Table E.1: Solvency position of ZLIC HK branch as at 31 December 2020**

	2021 YE	2022 YE	2023 YE
<b>Base Scenario</b>	<b>519%</b>	<b>576%</b>	<b>631%</b>
Prescribed scenario 1	500%	554%	605%
Prescribed scenario 2	472%	486%	498%
Prescribed scenario 3	338%	400%	436%
Prescribed scenario 4	687%	815%	924%
Compound scenario 1 (Pandemic)	481%	534%	585%
Compound scenario 2 (Medium-term inflationary)	595%	733%	806%
Compound scenario 3 ( Medium-term deflationary)	309%	363%	377%
Additional plausible adverse scenario 1 (operational risk)	513%	684%	734%
Additional plausible adverse scenario 2 (counter-party risk)	456%	534%	574%
Additional plausible adverse scenario 3 (credit spread risk)	376%	442%	509%
Additional plausible adverse scenario 4 (flat economics)	511%	580%	650%
Additional plausible adverse scenario 5 (drop in interest rates, combined with a market crash and flat economics)	327%	386%	453%
<b><u>Change from base scenario</u></b>			
Prescribed scenario 1	-19%	-23%	-25%
Prescribed scenario 2	-47%	-90%	-132%
Prescribed scenario 3	-181%	-176%	-195%
Prescribed scenario 4	168%	239%	293%
Compound scenario 1 (Pandemic)	-38%	-42%	-46%
Compound scenario 2 (Medium-term inflationary)	76%	157%	176%
Compound scenario 3 (Medium-term deflationary)	-210%	-213%	-254%
Additional plausible adverse scenario 1 (operational risk)	-6%	108%	103%
Additional plausible adverse scenario 2 (counter-party risk)	-63%	-42%	-57%
Additional plausible adverse scenario 3 (credit spread risk)	-143%	-134%	-122%
Additional plausible adverse scenario 4 (flat economics)	-8%	4%	19%
Additional plausible adverse scenario 5 (drop in interest rates, combined with a market crash and flat economics)	-192%	-190%	-177%

**Table E.2: Solvency position of ZLIHK as at 31 December 2020**

	2021 YE	2022 YE	2023 YE
<b>Base Scenario</b>	<b>634%</b>	<b>586%</b>	<b>493%</b>
Prescribed scenario 1	612%	557%	448%
Prescribed scenario 2	583%	495%	374%
Prescribed scenario 3	448%	414%	321%
Prescribed scenario 4	812%	813%	726%
Prescribed scenario 5	633%	578%	441%
Prescribed scenario 6	634%	598%	556%
Compound scenario 1 (Pandemic)	588%	535%	444%
Compound scenario 2 (Medium-term inflationary)	700%	722%	591%
Compound scenario 3 (Medium-term deflationary)	429%	391%	282%
Additional plausible adverse scenario 1 (operational risk)	627%	692%	563%
Additional plausible adverse scenario 2 (counter-party risk)	563%	537%	433%
Additional plausible adverse scenario 3 (credit spread risk)	483%	447%	372%
Additional plausible adverse scenario 4 (flat economics)	624%	588%	509%
Additional plausible adverse scenario 5 (drop in interest rates, combined with a market crash and flat economics)	435%	399%	336%
<b><u>Change from base scenario *</u></b>			
Prescribed scenario 1	-21%	-29%	-45%
Prescribed scenario 2	-50%	-91%	-119%
Prescribed scenario 3	-186%	-172%	-173%
Prescribed scenario 4	179%	227%	233%
Prescribed scenario 5	0%	-8%	-52%
Prescribed scenario 6	0%	12%	63%
Compound scenario 1 (Pandemic)	-45%	-51%	-49%
Compound scenario 2 (Medium-term inflationary)	67%	136%	98%
Compound scenario 3 (Medium-term deflationary)	-204%	-195%	-212%
Additional plausible adverse scenario 1 (operational risk)	-6%	106%	70%
Additional plausible adverse scenario 2 (counter-party risk)	-70%	-49%	-60%
Additional plausible adverse scenario 3 (credit spread risk)	-151%	-139%	-122%
Additional plausible adverse scenario 4 (flat economics)	-9%	3%	16%
Additional plausible adverse scenario 5 (drop in interest rates, combined with a market crash and flat economics)	-199%	-187%	-157%

### B.3 SUMMARY OF CRITICAL ASSUMPTIONS IN DST

- B.3.1. The base scenario is based on a realistic set of assumptions for investment return, management expenses and new business sales used to project the financial position over the forecast period between 2021 and 2023 for ZLIC HK branch and ZLIHK. For ZLIHK, the projections have incorporated the Transferring Business.
- B.3.2. For both ZLIC HK branch and ZLIHK, the starting point of the projection is 31 December 2020 and the opening assets, liabilities, net assets and solvency ratio are the actual 2020-year-end statistics as at 31 December 2020.

### B.4 SUMMARY OF SCENARIOS

- B.4.1. The scenarios conducted under the DST results are as prescribed under the Guidance Note issued by the Actuarial Society of Hong Kong, with the aim to investigate the likely solvency of the companies under a range of adverse scenarios in the near future. Three compound scenarios and two additional plausible adverse scenarios (“PAS”) are performed to identify the possible critical scenarios to the financial position.
- B.4.2. Whilst the scenarios conducted under the 2020 DST exercise are generally in line with those conducted under the 2019 DST exercise, the Appointed Actuary of ZLIHK has revisited some of the compound scenarios and additional plausible adverse scenarios. For these scenarios, small changes have been made such that these scenarios more strictly following the guidance in the Actuarial Guidance Note 7 (“AGN7”). In addition, the “COVID-19” scenario (PAS 4) in 2019 DST has been removed and it has replaced with two additional scenarios prescribed by the IA, being “Flat economics” scenario (PAS 4) and “Combined scenario of drop in interest rate, a market crash and flat economics” (PAS 5).

### B.5 DETAILED DESCRIPTIONS OF SCENARIOS

#### Prescribed scenario 1: deterioration in claims experience

- 15% deterioration in mortality and morbidity rates

#### Prescribed scenario 2: deterioration in persistency experience

- 5% change in lapse rates in whichever direction produces deteriorating results (a 5% subtraction from the original lapse rates).

#### Prescribed scenario 3: drop in interest rates, combined with a market crash

- 30% reduction in bond yields in all three projection years
- 25% reduction in equity values at first year with same growth rate as base scenario in the following 2 years

#### Prescribed scenario 4: rise in interest rates, combined with a market crash

- 30% rise in bond yields with plus 2% floor in all three projection years
- 25% reduction in equity values at first year with same growth rate as base scenario in the following 2 years

#### Prescribed scenario 5: high new business growth rates

- High growth throughout the forecast period, with growth rate being 30%, or 150% of plan growth rate if higher, and with a reasonable corresponding increase in expenses.

**Prescribed scenario 6: low new business growth rates**

- The sales growth rate is -20% in every projected year, while the expense will not change.

**Compound scenario 1: pandemic**

- 10% increase of expenses;
- First year mortality added by 0.15%
- 20% decrease in first year sales

**Compound scenario 2: medium-term inflationary**

- 300bps increase in yield curve
- Inflation 3% p.a. higher than base assumptions in all 3 projection years;
- 30% drop in equity values in the first year.

**Compound scenario 3: medium-term deflationary**

- 50% reduction in bond yields in all 3 projection years;
- Inflation 1% p.a. lower than base assumptions
- 25% reduction in equity values at first year;
- Bond default rates to double;
- 10% increase in sales of non-saving protection products;
- 10% deterioration in foreign exchange rates in year 1, and then the foreign exchange rates remain unchanged in the later years.

**Additional plausible adverse scenario 1 (operational risk)**

- HKD 10 million of fine at time 0;
- 10% addition in lapse rate in the first and second year for existing business and 30% drop in sales in first and second year for new business;
- Aggregate loss equal to 1% of unit-linked fund under management;
- 20% increase of acquisition expense.

**Additional plausible adverse scenario 2 (counterparty risk)**

- Bond: Defaults on the corporate bond portfolio equivalent to 0.5% of the market value of its investment grade bonds (excluding AAA rated corporate bonds and highly rate sovereign bonds) and 3% of the market value of its non-investment grade bonds, or default on the largest bond issuer of the company's fixed income portfolio (excluding AAA rated corporate bonds and highly rated sovereign bonds), whichever impact is higher. In this scenario, the latter is taken. Recovery rate is 35%, and a widening of 50bps for corporate bond spread;
- Reinsurance: Default of the most significant reinsurer in terms of business ceded on the first year.

**Additional plausible adverse scenario 3 (credit spread risk)**

- Widening of 150bps for bonds of investment grade, and 250 bps for bonds of non-investment grade. Shock only applied on all corporate bonds and government bonds with credit rating below AA-

**Additional plausible adverse scenario 4 (flat economics)**

- Interest rates and bond yields stay flat as of end December 2020. No capital appreciation for equity over the projection.

**Additional plausible adverse scenario 5 (drop in interest rate, combined with a market crash and flat economics)**

- Prescribed scenario 3 combined with additional plausible adverse scenario 4
- 30% reduction on interest rates of 2020 year-end and remain unchanged in all 3 projection years. 25% reduction in equity values and remain unchanged throughout the forecast period.