



**IAIS**

INTERNATIONAL ASSOCIATION OF  
INSURANCE SUPERVISORS

**Public**

# **Higher Loss Absorbency Requirement for Global Systemically Important Insurers (G-SIIs)**

**5 October 2015**

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Established in 1994, the IAIS is the international standard setting body responsible for developing principles, standards and other supporting material for the supervision of the insurance sector and assisting in their implementation. The IAIS also provides a forum for Members to share their experiences and understanding of insurance supervision and insurance markets.

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## Preface

This document describes the first version of the Higher Loss Absorbency (HLA) requirement for Global Systemically Important Insurers (G-SIIs). The HLA builds on the Basic Capital Requirements (BCR) and addresses additional capital requirements for G-SIIs reflecting their systemic importance in the international financial system. The current foundation for the HLA is the BCR, which the IAIS intends to replace with the Insurance Capital Standard (ICS) as that foundation when the ICS is developed. As the ICS is developed, the design and calibration of the HLA will be reviewed. Additionally, certain aspects of the HLA relate to requirements applicable to other regulated financial sectors (e.g. banking, asset management) for which capital rules already exist or are under development. The IAIS will continue to ensure consistency with such other requirements so as to minimise opportunities for regulatory arbitrage.

The IAIS acknowledges the need to monitor developments and to make changes to the HLA as necessary. In the near term, the ongoing and related IAIS work on the definitions of Non-Traditional and Non-Insurance (NTNI) activities and on the framework of the G-SII Assessment Methodology – each to be the subject of separate consultations to be released by the IAIS in November 2015 – will be closely monitored and evaluated in the context of the HLA. Changes to the NTNI definitions or the G-SII Assessment Methodology will lead to a change in HLA design and calibration.

As described in Section 7.2 of this HLA Document, it is anticipated the periodic annual analyses of insurer field testing data in 2016-2018 and the BCR and HLA review process will also lead to changes to the HLA design and calibration, prior to the proposed implementation of HLA.

*The HLA is scheduled to be formally adopted by the IAIS at its General Meeting on 12 November 2015.*

## 1 Executive summary

### 1.1 Overview

1. The purpose of this document is to describe the Higher Loss Absorbency (HLA) requirement to apply to Global Systemically Important Insurers (G-SIIs).
2. Together with the Basic Capital Requirements (BCR), the HLA will provide a globally comparable group capital requirement that is intended to apply to all G-SIIs. The HLA presumes G-SIIs are going concerns. The primary purpose of the HLA is to assist reducing the probability and impact on the financial system of the distress or failure of a G-SII.<sup>1</sup> The HLA will apply to all group activities (as is the case for the BCR), including non-insurance subsidiaries. Capital resources supporting the HLA required capital need to be of the highest quality.
3. The HLA builds on, and is in addition to, the BCR for G-SIIs. The BCR provides a globally comparable foundation on which the HLA can be developed. The BCR was developed in 2014 and published in October 2014<sup>2</sup> and is referred to as the BCR Document. The BCR required capital amount determined by the BCR document is referred to as the BCR<sub>2014</sub>.
4. The HLA builds on the BCR and addresses additional capital requirements for G-SIIs reflecting their systemic importance in the international financial system. When the HLA is implemented in 2019, all G-SIIs will be expected to hold regulatory capital that is not less than the sum of the required capital amounts from the BCR and the HLA.
5. The construction process for the HLA separates BCR required capital exposures by Traditional Insurance, Assets, Non-Traditional Insurance (NT), and Non-Insurance (NI). This permits existing global regulatory requirements in non-insurance sectors to be also reflected. The definition of NT and NI used in this document are those as provided in the BCR Document. The overall impact of the HLA is determined by the amounts of HLA from both Insurance and NI business.
6. For the total BCR+HLA required capital six components are considered. For each of Insurance and NI there are three components:
  - **BCR<sub>2014</sub>**. This is as specified in the BCR Document.
  - **BCR<sub>Uplift</sub>**. The BCR required capital has been recalibrated based on field testing and work performed in 2015 to determine the HLA requirements. The amount by which the prior BCR required capital is increased is called the BCR<sub>Uplift</sub>. The

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<sup>1</sup> See paragraph 49 of the G-SII Policy Measures paper.

See <http://iaisweb.org/index.cfm?event=getPage&nodeId=25233> and then the “Financial Stability & Macroprudential Policy & Surveillance” section under the “Supervisory Material” tab.

<sup>2</sup> See *Basic Capital Requirements for Global Systemically Important Insurers*, 23 October 2014.

See <http://iaisweb.org/index.cfm?event=getPage&nodeId=25233> and then the “Financial Stability & Macroprudential Policy & Surveillance” section under the “Supervisory Material” tab.

recalibrated BCR ( $BCR_{2015}$ ) is the sum of the prior BCR ( $BCR_{2014}$ ) and the increase,  $BCR_{Uplift}$ .

- **HLA.** Additional capital requirements, in addition to the BCR requirements.
7. An important consideration in the development of the HLA is that G-SIIs should be required by their group-wide supervisors to hold higher levels of regulatory capital than would be the case if they were not designated as G-SIIs. This is because G-SIIs are considered to have more systemic risk than insurers that have not been designated as G-SIIs.
  8. The HLA will be privately reported by G-SIIs to group-wide supervisors commencing in 2016. This is in addition to private reporting of the BCR to group-wide supervisors, which commenced in 2015.
  9. The HLA will initially be based on BCR as a foundation, but later will be based on the risk based group-wide global Insurance Capital Standard (ICS) as a foundation.
  10. The review and refinement process for the BCR and HLA has two aspects:
    - The calibration of both the BCR and HLA, which are interlinked, may be modified depending on future experience and analysis. Monitoring the calibration level of the combined BCR and HLA required capital for G-SIIs will form part of an annual review process for the BCR and/or HLA, until after the ICS is implemented. These reviews will recommend refinements, if deemed necessary.
    - When the ICS is developed, the calibration and structure of the HLA will be reviewed and may need to be revised.

These reviews will be supported by ongoing IAIS field testing to support the development of the ICS.

## 1.2 IAIS global capital standards

11. The HLA is the second milestone in the IAIS' project to develop group-wide global capital standards. The first milestone was the BCR; the third is the ICS.
12. The first version of the ICS is due to be completed by the middle of 2017 and is scheduled to apply to Internationally Active Insurance Groups (IAIGs) from 2020 after refinement and final calibration in 2018 and 2019. For ICS purposes all G-SIIs are considered to be IAIGs. The development of the ICS will be informed by, among other things, monitoring the results from the application of the HLA and the BCR.

13. Comments on the public Consultation Document on the HLA, issued on 25 June 2015, were received, considered and reflected in the HLA development process.<sup>3</sup> The field testing exercise to collect data to inform HLA development commenced in 2014 and continued in 2015.

### 1.3 BCR<sub>Uplift</sub>

14. The uplift of required capital amounts, for both Insurance and NI, will increase the BCR<sub>2014</sub> of each to reduce the expected gap between the BCR<sub>2015</sub> and the future Insurance Capital Standard (ICS). This BCR<sub>Uplift</sub> is essentially achieved by increasing the BCR alpha factor ( $\alpha$ ) from 100% to 133%. The same 33% uplift is applied to the NI component of the BCR<sub>2014</sub>. This generates the BCR<sub>2015</sub>, which is equal to the BCR<sub>2014</sub> plus the BCR<sub>Uplift</sub>.<sup>4</sup>
15. The NI component of the BCR<sub>2015</sub> relating to regulated banking activities will be the maximum of the BCR<sub>2014</sub> requirement of 3% of the Basel III banking Leverage Ratio and 8% of Risk Weighted Assets (RWA).
16. The BCR<sub>Uplift</sub>, for both Insurance and NI, will be phased in over a three year transition period (2016, 2017 and 2018)<sup>5</sup> in three equal steps (that is, with the BCR alpha factor set at 111%, 122% and 133%, respectively). During the transition period the calculation of the HLA components will reflect the full amounts computed for the BCR<sub>2015</sub>, rather than the reduced amounts computed for transition purposes.

### 1.4 HLA required capital

17. The HLA required capital amount is calculated using a factor-based approach. It will be determined based on the bucket in which a G-SII is placed and then by the HLA factors that pertain to each bucket as applied to BCR required capital exposures. There are three buckets specified. Currently the top (highest) bucket is not populated (that is, no current G-SII is allocated into this bucket under the criteria in this document).

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<sup>3</sup> The comments received on the HLA Consultation Documents are available on the IAIS website.

See: <http://iaisweb.org/index.cfm?event=getPage&persistId=FBF6630A155D896B00DCE8157DA5BD0C>.

<sup>4</sup> The Uplift for the NI components are subject to global regulatory requirements for other sectors, in particular regulated banking.

<sup>5</sup> This transition is expected to be completed during the HLA private reporting period, prior to the implementation of the HLA, which is scheduled for 2019.



18. The HLA required capital, on average, over the current set of G-SIIs, is approximately 10% of the BCR<sub>2015</sub> required capital amount. G-SIIs have different risk profiles and business models so there is variation around this average outcome between them.<sup>6</sup> This level of calibration results in HLA required capital amounts for the current G-SIIs that do not significantly exceed the amounts for banks in the lowest G-SIB bucket (on a relative basis).
19. The IAIS considers that the HLA formula approach with the three buckets and their associated HLA factors is optimal to produce an appropriate balance between risk sensitivity, complexity and dispersion. The third (highest) bucket is relevant to address the possibility that a G-SII becomes more systemic than is recognised by the two currently populated buckets.
20. It is anticipated that the revised G-SII Assessment Methodology would permit annual publication of the bucket allocations for all G-SIIs.
21. In September 2014, the IAIS published a set of principles to support the development the HLA. These are reproduced in Annex B. The HLA formula approach is consistent with these principles.

### **1.5 HLA capital resources**

22. The specification of qualifying capital resources to support the BCR remains the same as given in the BCR Document.
23. The capital resources that support the HLA required capital must be of the highest quality (as stated in HLA Principle 6).

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<sup>6</sup> The HLA required capital amounts, for Insurance and NI, will increase the BCR components by factors that range from 6% to approximately 19% for the populated buckets.

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## 2 Context

### 2.1 Background

24. Following the global financial crisis, the Financial Stability Board (FSB) and G20 initiated work to identify Global Systemically Important Financial Institutions (G-SIFIs). As part of this broad initiative the IAIS published a framework of policy measures in July 2013, the G-SII Policy Measures,<sup>7</sup> that should be applied to insurers designated as G-SIIs.
25. The G-SII Assessment Methodology<sup>8</sup> provided a basis under which the initial cohort of G-SIIs was identified in 2013. The same basis was applied to support the identification of the second cohort of G-SIIs<sup>9</sup> in 2014. A review of the methodology to identify G-SIIs is underway. The results of this review are not yet available (see section 7.2).
26. The G-SII Policy Measures identified three main areas of focus: enhanced supervision, effective resolution, and loss absorption (addressed by the BCR) and HLA capacity. Progress to date in these areas provides a context and a starting point for work to develop the HLA.
27. The IAIS has completed further work since the G-SII Policy Measures were published in July 2013. In particular, the IAIS has:
  - Developed the BCR, which applies to G-SIIs. This was endorsed by the FSB in October 2014 and the G20 Summit in November 2014.
  - Conducted field testing work in 2014 and 2015 to support the development of the BCR, HLA and ICS.

### 2.2 The purposes of HLA at July 2013

28. On 18 July 2013, the IAIS and the FSB made the following joint commitment:

*“As a foundation for HLA requirements for G-SIIs, the IAIS will as a first step develop straightforward, backstop capital requirements to apply to all group activities, including non-insurance subsidiaries, to be finalised by the end of 2014.”*
29. This clearly indicates that the scope of activities covered by the HLA is the same as that of the BCR, and so includes consideration of all group activities.

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<sup>7</sup> See <http://iaisweb.org/index.cfm?event=getPage&nodeId=25233> and then the “Financial Stability & Macroprudential Policy & Surveillance” section under the “Supervisory Material” tab.

<sup>8</sup> See <http://iaisweb.org/index.cfm?event=getPage&nodeId=25233> and then the “Financial Stability & Macroprudential Policy & Surveillance” section under the “Supervisory Material” tab.

<sup>9</sup> See <http://www.financialstabilityboard.org/2014/11/fsb-announces-update-of-list-of-global-systemically-important-insurers-g-siis/>.

30. The G-SII Policy Measures, in paragraphs 48 – 56,<sup>10</sup> provides the IAIS perspective on developing an HLA as at July 2013.

In particular, paragraph 49 provides the following summary:

*“The desired outcomes of HLA capacity, all of which work to reduce the probability of distress or failure and thus the expected impact, include:*

- *Internalising some of the costs to the financial system and overall economy, which are otherwise externalities to the insurance group that occur as a result of a G-SIIs distress or failure by making G-SIIs more resilient to low probability, high impact events;*
- *Allowing for earlier supervisory intervention and more time to address emerging risks to the financial system;*
- *Providing disincentives to carrying out activities that pose a threat to the financial system; and*
- *Offsetting any benefit should it arise, such as lower funding costs, associated with the G-SII status.”*

### 2.3 IAIS position on systemic risk

31. A definition of systemic risk<sup>11</sup> is:

*“Systemic risk is the risk of disruption of financial services that is caused by impairment of all or parts of the financial system and has the potential for serious negative consequences for the real economy.”*

32. The IAIS position on systemic risk, as indicated in the G-SII Policy Measures, can be summarised as:

- Differences between the traditional insurance business model and the banking business model need to be considered when assessing the systemic importance of insurance.
- The time dimension is important in insurance (both in respect of business model and regulatory action) as runs on insurers are uncommon though not impossible.
- There is little evidence of traditional insurance either generating or amplifying systemic risk.
- NT and NI activities within insurance firms or groups may generate or amplify systemic risk.

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<sup>10</sup> See <http://iaisweb.org/index.cfm?event=getPage&nodeId=25233> and then the “Financial Stability & Macroprudential Policy & Surveillance” section under the “Supervisory Material” tab.

<sup>11</sup> See Report to G20 Finance Ministers and Governors, *Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations*, October 2009.

- The insurance sector is susceptible to systemic risk generated in or transmitted through other parts of the financial sector.
  - Insurer activities may amplify systemic risk under specific circumstances e.g. through reacting to downturns in capital markets or through unexpected withdrawal of capacity.
33. Insurers are designated as G-SIIs due to an assessment that their distress or failure may result in a systemic risk event. Designation is not, however, driven solely by the NTNI component of their designation score; a number of other factors are taken into account, such as interconnectedness. It may nevertheless be appropriate to emphasise NT and NI-related issues in the HLA design in accordance with the goal to provide disincentives to carrying out activities that pose a threat to the financial system.
34. The IAIS is also currently reviewing the definitions of NT and NI activities, and revisiting the G-SII Assessment Methodology.<sup>12</sup> When these reviews are completed, their impact on the BCR and HLA will be reviewed (see section 7.2).

#### **2.4 HLA relationship with the ICS**

35. The IAIS has indicated that when the ICS is developed, the HLA will be reviewed and its foundation changed from the BCR to the ICS. This may then require a review of the HLA, both in terms of its structure and calibration.

#### **2.5 Development of the HLA**

36. Similar to the approach used for the BCR, a number of Principles have been articulated to support the development of the HLA. The HLA Principles were published by the IAIS in September 2014 and are reproduced in Annex B.
37. The IAIS currently plans to review the HLA, for the purpose of replacing the BCR with the ICS as its foundation, subsequent to the ICS' scheduled application to IAIGs from 2020.

#### **2.6 Formulas for the BCR<sub>2014</sub>**

38. Mathematical formulations for required capital amounts can help remove ambiguity in interpretations. Details of the formulas for BCR<sub>2014</sub>, BCR<sub>Uplift</sub>, and BCR<sub>2015</sub> are provided in Annex E. Some terms defined in this Annex may be used subsequently in the main body of this document.

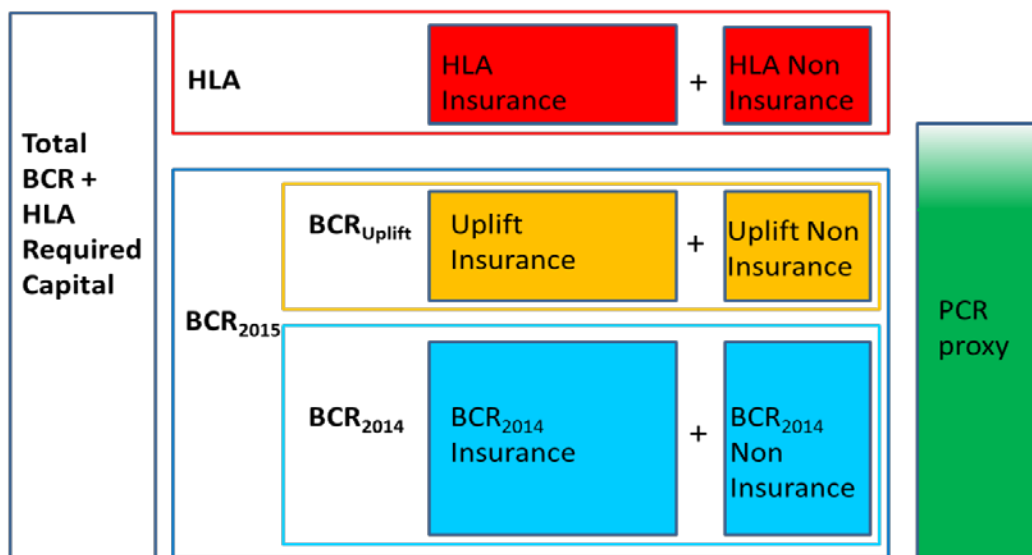
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<sup>12</sup> Consultation documents regarding both these reviews are scheduled to be published by the IAIS by the end of 2015.

## 2.7 Components of BCR<sub>2015</sub> + HLA

39. A summary graphic is given below in Figure 2.1 that gives the relationship between the BCR<sub>2014</sub>, the BCR<sub>Uplift</sub>, the BCR<sub>2015</sub> and the HLA required capital amounts.
40. The total BCR+HLA required capital is split into six components, each of which is addressed separately below. No component may be negative. The total BCR+HLA required capital is the sum of the results from the six components, with the BCR<sub>2014</sub>, BCR<sub>Uplift</sub>, and HLA components being separated into Insurance and NI.
- The total HLA required capital amount is represented by the red boxes.
  - The BCR<sub>2015</sub> is the sum of the BCR<sub>Uplift</sub> from the orange boxes and the BCR<sub>2014</sub> required capital from the blue boxes. The Insurance and NI components are separated within these different colours.
  - The Insurance components include Traditional Insurance, assets and NT.
  - NI activities include regulated banking, unregulated banking, assets under management and other activities.

**Figure 2.1: BCR<sub>2015</sub>, BCR<sub>2014</sub>, BCR<sub>Uplift</sub> and HLA components (not to scale)**



41. Existing jurisdictional Prescribed Capital Requirements (PCRs) are not globally comparable. The IAIS developed the BCR to provide a globally comparable foundation so that, together with the HLA, there could be a consolidated group-wide globally comparable regulatory capital requirement. However, a comparison of the averages between BCR and jurisdictional PCRs still provides an approximate high-level sectoral measure of regulatory required capital. The lack of global comparability of PCRs is conceptually represented in the figure above by the shading at the top of the box labelled “PCR Proxy”.

### 3 The BCR<sub>Uplift</sub>

#### 3.1 Formulas for BCR<sub>Uplift</sub> and BCR<sub>2015</sub>

42. The BCR<sub>Uplift</sub> is achieved by recalibrating the BCR<sub>2014</sub>. The BCR<sub>Uplift</sub> is, essentially, achieved by increasing the BCR<sub>2014</sub> scalar  $\alpha$  (alpha) from 100% to 133%. With the exception the Non-Insurance Regulated Banking (NI-RB) component, the 33% uplift will also be applied to the NI components. The treatment of the NI-RB component is specified below.
43. Formulas for BCR<sub>Uplift</sub> and BCR<sub>2015</sub> = BCR<sub>2014</sub> + BCR<sub>Uplift</sub> are provided in Annex E.

#### 3.2 The BCR<sub>Uplift</sub>

44. Based on 2014 and 2015 field testing data, the average BCR<sub>2014</sub> required capital, expressed as a percentage of PCR in aggregate for all G-SIIs, was 75%. To scale the amount of the aggregate BCR<sub>2015</sub> required capital up to 100% a 33% uplift of the BCR<sub>2014</sub> is needed.<sup>13</sup>
45. The BCR Document states that where global capital standards are in place for non-insurance sectors, the outcomes from those other sectoral standards should not be exceeded in the BCR. Consequently the uplift to the NI component of the BCR<sub>Uplift</sub> needs to be addressed separately to consider other sectoral global standards. The uplifts in BCR<sub>Uplift</sub> are:
- **Uplift Insurance.** Increasing the BCR calibration factor from its current 100% to 133%. That is,  $\alpha_{BCR} = 1.33$ .
  - **Uplift Non-Insurance – other than regulated banking.** Apply a factor of 33% to the relevant components of BCR<sub>2014</sub> NI required capital.
  - **Uplift Non-Insurance – Regulated Banking (NI-RB).** The component BCR<sub>Uplift</sub> for the regulated banking sector, NI-RB<sub>BCR Uplift</sub>, is determined by reference to the banking sector requirements<sup>14</sup> and the requirement that it may not be negative. NI-RB<sub>BCR 2015</sub> is taken to be the maximum of the BCR<sub>2014</sub> component (3% of the Leverage Ratio) and the Basel III Risk Weighted Assets (RWA) requirements (of

<sup>13</sup> For reporting purposes, in contrast to HLA required capital calculation purposes, a transition process is specified (See section 3.4). The calculation specified here and in Annex E is for the full BCR<sub>Uplift</sub> and should be used for the calculation of the HLA. The calculations appropriate to reporting through the transition period require the 0.33 factor used in the formulas in this section to be replaced by the specified transitional reporting period numbers.

<sup>14</sup> The BCR<sub>2015</sub> is calibrated to an average PCR level to reduce the expected gap between BCR<sub>2015</sub> and the future ICS. In the banking sector, the equivalent measure is the higher of 8% of RWA or the 3% leverage ratio. Therefore, in the BCR<sub>2015</sub> the maximum of these two requirements will replace the 3% leverage ratio in the BCR<sub>2014</sub> for NI regulated banking business

8% as noted below).<sup>15</sup>  $NI-RB_{BCR\ Uplift}$  is then the increase over the  $NI-RB_{BCR\ 2014}$  (the 3% of the Leverage ratio). This is expressed as follows:

$$NI-RB_{BCR\ 2015} = \text{Max} [ 3\% \text{ Leverage ratio, } 8\% \text{ RWA} ]$$

$$NI-RB_{BCR\ Uplift} = NI-RB_{BCR\ 2015} - NI-RB_{BCR\ 2014} .$$

46. The BCR Document specifically states that the BCR calibration level may be modified depending on the HLA requirements as well as refinement work during the period of confidential reporting.  $BCR_{2015}$ , the  $BCR_{2014}$  plus the  $BCR_{Uplift}$  is part of the recalibration of the BCR.
47. The appropriate Basel III capital ratio requirements for the purposes of determining the  $BCR_{Uplift}$  are the 8% of RWA and the 3% Leverage Ratio. This RWA percentage excludes any HLA required capital.
48. The quality of capital resources required to support the  $BCR_{Uplift}$  will be the same as for the  $BCR_{2014}$ . In particular, Qualifying Additional capital cannot exceed 50% of BCR required capital.
49. Where  $BCR_{2015}$  (or  $BCR_{2014}$  or  $BCR_{Uplift}$ ) references are limited to Insurance, Traditional Insurance, Assets, NT, NI or a specific combination of these then a relevant descriptor will be used.

### 3.3 Impact of $BCR_{Uplift}$

50. Table 3.1 provides some examples of the impact of the rescaling on a selection of BCR factors due to the  $BCR_{Uplift}$ . The full list of the rescaled  $BCR_{2014}$  factors after the  $BCR_{Uplift}$  is given in Annex D. These rescaled BCR factors reflect the cumulative impact, in terms of required capital, of the  $BCR_{2014}$  and the  $BCR_{Uplift}$ . These rescaled factors show the contribution to the  $BCR_{2015}$  attributable to the underlying BCR exposures. Therefore, an assessment of the reasonableness of these cumulative factors in the insurance business context is a useful criterion to assess the appropriateness of  $BCR_{2015}$  required capital outcomes.

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<sup>15</sup> This formulation treats regulated banks in aggregate and not separately. In theory this permits offsetting between banks in the calculation. In practice this is considered unlikely to be a concern. If this is shown not to be the case then a review in the future will be considered.

**Table 3.1: Examples of cumulative uplifted BCR factor values for BCR for insurance activities**

BCR segment	BCR proxy measure for risk exposure	BCR <sub>2014</sub> Factor value ( $\alpha_{BCR2014} = 1.00$ )	BCR Factor value ( $\alpha_{BCR} = 1.33$ )
<b>Traditional Life (TL)</b>			
Participating products	Net Current Estimate	0.60%	0.80%
<b>Traditional Non-life (TNL)</b>			
Property	Premium Measure	6.3%	8.4%
<b>Non-Traditional (NT)</b>			
Variable annuities	Notional Value	1.2%	1.6%
<b>Assets (A)</b>			
Credit - investment grade	Fair Value	0.70%	0.93%

51. The changes in the NI components are as follows

- For NI-RB business, banking sector requirements are as discussed above.
- For Non-Insurance - Unregulated Banking (NI-UB) business the 133% multiplier applies but the cap at 8% of RWA does not.
- For Non-Insurance – Assets Under Management (NI-AUM), the BCR uses the standard indicator method for addressing operational risk of asset management activities in Basel II.<sup>16</sup> Currently this is 12% of gross income (averaged over 3 years). Like insurance business, this is subject to a multiplier of 133%.
- For Non-Insurance – Other (NI-O) business the 133% multiplier applies.

**Table 3.2: Examples of Uplifted BCR Factor values for NI**

BCR segment	BCR proxy measure for risk exposure	BCR <sub>2014</sub> Factor value ( $\alpha_{BCR2014} = 1.00$ )	BCR Factor value ( $\alpha_{BCR} = 1.33$ )
<b>Non-Insurance</b>			
Banking – regulated (note cap of 8% RWA subject to no negative uplift)	Leverage ratio exposure measure	3.0%	n/a
Banking – unregulated	Leverage ratio exposure measure	3.0%	4.0%
Assets under management	3 year average gross income	12.0%	16.0%

<sup>16</sup> Paragraph 654 of the Basel II Comprehensive Version (<http://www.bis.org/publ/bcbs128.pdf>).



There is no single BCR Factor value for regulated banking since the result is the maximum of two amounts for each G-SII, as stated above.

### 3.4 Transition period for Uplifts

52. The  $BCR_{Uplift}$ , for both Insurance and NI, will be phased in over a three year transition period (2016, 2017 and 2018) in three equal steps (that is, with the BCR alpha factor set at 111%, 122% and 133%, respectively). This transition is expected to be completed during the HLA private reporting period, prior to implementation of the HLA, which is scheduled for 2019.
53. During the transition period the calculation of the HLA insurance component and the HLA NI component will be calculated based on the full amounts computed for BCR insurance Uplift and BCR NI Uplift, rather than the reduced amounts computed for transition purposes.
54. Having a transition period for the Uplifts permits review and possible refinement of the full uplift factors to reflect future data and experience.<sup>17</sup> This recognises that the uplift factors are based on two data points from field testing in 2014 and 2015. The transition period will allow the IAIS to review the Uplift based on field testing data in 2016, 2017 and 2018 to avoid variance with the then current desired target.

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<sup>17</sup> Note also HLA Principle 4 (Resilient). As indicated in section 7.2, the annual review process for the BCR and HLA can be expected to consider the behaviour of the BCR and HLA in varying economic conditions. It is noted that the economic conditions in 2013 and 2014 were similar.

## 4 The HLA required capital formula

### 4.1 Structure of the HLA required capital formula

55. The HLA required capital formula builds on the foundation of the BCR required capital formula, which is factor-based.<sup>18</sup> The HLA required capital formula<sup>19</sup> is also factor-based and the HLA required capital formula specifies factors to be applied to exposures based on components of the BCR required capital.<sup>20</sup>
56. A factor-based approach has a number of advantages, including:
- **Flexibility.** It is possible to change a factor without necessarily being required to change others.
  - **Transparency.** The direct linkage to the BCR components and their associated BCR required capital exposures is more intuitive and increases transparency.
  - **Independence.** A G-SII can see the impact of changes in its business mix, from the perspective of HLA required capital. These changes are independent of the behaviour of other G-SIIs (for a particular set of factors/bucket).
57. A factor is specified for the BCR required capital exposures for each component of the BCR<sub>2015</sub> required capital formula. The BCR<sub>2015</sub> required capital exposure is the sum of the BCR<sub>2014</sub> and the full BCR<sub>Uplift</sub> required capital amounts.
58. G-SIIs have varying business mixes and business models so it is expected that the combined impact of the BCR and HLA required capital will vary by G-SII. It follows that it is appropriate for the HLA required capital calculation to reflect this diversity in risk profile. This is directly reflected by using differing factors for differing business components in the HLA required capital formula.
59. The G-SIIs also have been split into a number of groups, called buckets, based on their G-SII designation scores. Separate sets of factors appropriate for each bucket are then applied.
60. The outcomes from this approach are summarised in the following table. The Low, Mid and High buckets are specified in section 4.4.
61. The rationale for the choices of factors in each bucket and their relativities is discussed in the following sections.

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<sup>18</sup> A factor-based formula is the sum over a number of products of an exposure multiplied by a factor.

<sup>19</sup> Where it can be done without ambiguity, phrases such as 'HLA required capital formula' are shortened (for example, to 'HLA formula'). Where additional specification is needed it will be included (for example, 'HLA Traditional Insurance required capital formula').

<sup>20</sup> For clarity, it is noted that the BCR required capital amounts are themselves generated from the factor-based BCR formula. It is important to remember that the exposures used for the HLA required capital calculation, the BCR required capital amounts, are not the same as the exposures used to compute those BCR required capital amounts.

**Table 4.1: HLA required capital formula factors**

BCR required capital exposure	HLA Factors		
	Low Bucket	Mid Bucket	High Bucket
TL <sub>BCR 2015</sub> : Traditional Life insurance	6%	9%	13.5%
TNL <sub>BCR 2015</sub> : Traditional Non-Life insurance			
A <sub>BCR 2015</sub> : Assets			
NT <sub>BCR 2015</sub> : Non-Traditional insurance	12%	18%	27%
NI-AUM <sub>BCR 2015</sub> : Non-Insurance – Assets Under Management			
NI-O <sub>BCR 2015</sub> : Non-Insurance – Other			
NI-RB <sub>BCR 2015</sub> : Non-Insurance – Regulated Banking	8.5%	12.5%	18.75%
NI-UB <sub>BCR 2015</sub> : Non-Insurance – Unregulated banking	12.5%	18.75%	25%

#### 4.2 HLA calibration

62. The outcomes from the HLA formula should generate a meaningful HLA required capital amount for each G-SII and also achieve an appropriate balance between risk sensitivity, complexity and dispersion.
63. On average, over the set of G-SIIs designated in November 2014, the HLA required capital amount with the two populated buckets and HLA factors generated an average of approximately 10% of the BCR<sub>2015</sub> amount. This outcome is considered acceptable.
64. By way of comparison for cross sectoral consistency, it is noted that this level of calibration results in HLA required capital amounts for the current G-SIIs that do not significantly exceed that of a bank in the lowest G-SIB bucket.

#### 4.3 Managing the tension between risk sensitivity, complexity and dispersion

65. In order to design a risk sensitive HLA some additional emphasis on NT and NI is desirable. However, too high an additional emphasis on NT and NI could create undesirable dispersion (that is some G-SIIs with very high HLA amounts and some with much lower amounts). It was also considered that the NT and NI BCR required capital only captures some of the sources of systemic risk. Floors and ceilings were considered as possible options to limit unwarranted dispersion, in particular, in the case of high emphasis on NT and NI. The additional complexity created by floors and ceilings was considered undesirable.

66. Reflecting the need to avoid unwarranted dispersion, additional emphasis on NT and NI activities achieved by applying a factor of two to the factors deemed appropriate for traditional business (subject to caps from any global sectoral standards) was regarded as optimal to produce an appropriate balance between risk sensitivity, complexity and dispersion. Floors and ceilings then were not considered necessary due to the construction of the HLA required capital formula.

#### 4.4 Buckets

67. Based on analysis from 2014 and 2015 field testing, the IAIS has identified factors for the Low bucket. The Mid bucket is constructed with factors 50% higher than those in the Low bucket. This approach is similar to the approach used for bucketing of G-SIBs and produces adequate risk sensitivity. The High bucket is then constructed with factors 50%<sup>21</sup> higher than those in the Mid bucket.
68. The HLA design uses bucketing to reflect the risk sensitivity as measured by the G-SII Assessment Methodology. An analysis of results from the last three sets of G-SII designation processes shows two populated buckets with an additional empty bucket (the highest) in all sets of results. Having two populated buckets is considered appropriate by the IAIS. The use of buckets is designed to provide a disincentive for a G-SII to increase its systemic importance. Hence the third (highest) bucket is relevant to address the possibility that a G-SII becomes more systemic than is recognised by the two currently populated buckets.
69. On the one hand, the current G-SII Assessment Methodology reflects a broad range of indicators of potential systemic risk, including interconnectedness, global activity, substitutability and size, in addition to NT and NI activities. On the other hand, the BCR required capital calculation does not reflect all the indicators that the G-SII Assessment Methodology does. Consequently, the use of a number of buckets together with the use of different factors applied to BCR<sub>2015</sub> required capital exposures provides a richer, more flexible and more (systemic) risk responsive outcome for the HLA required capital calculation.
70. The use of buckets based on how systemic a G-SII is allows the application of higher factors to those G-SIIs that are more systemic.
71. For the purposes of HLA calculations:
- The results used to determine the bucketing are the full scores assigned to G-SIIs in the G-SII Assessment Methodology.

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<sup>21</sup> The specification of the High bucket does not follow the banking approach in that increments used for the banking buckets are additive, and the High bucket is obtained using a multiplicative approach. This is intended as it leads to a larger absolute increase in factors from the Mid to the High bucket than from the Low to Mid bucket.

- The buckets are determined by comparison between the individual G-SII's full score and the average from the G-SII Assessment Methodology for all G-SII candidates considered.
  - Allocation to a bucket determines the factors to apply to relevant exposures for each G-SII.
72. The procedure to determine the buckets is:
- **Bucket 1 – Low bucket:** All G-SIIs with a full score below 0.04<sup>22</sup> in the G-SII Assessment Methodology (where there are 50 participating insurers, hence the average score is 0.02 = 1/50).
  - **Bucket 2 - Mid bucket:** All G-SIIs with a full score between 0.04 and below 0.06 in the G-SII Assessment Methodology.
  - **Bucket 3 – High bucket:** All G-SIIs with a full score of 0.06 or above in the G-SII Assessment Methodology.
73. Based on G-SII Assessment Methodology results of the designation processes to date the High bucket is empty. The determination of the buckets may require review when the revised G-SII Assessment Methodology is finalised (see section 7.2).
74. It is anticipated that the revised G-SII Assessment Methodology would permit annual publication of the bucket allocations for all G-SIIs.

#### 4.5 HLA Factors

75. The HLA factors reflect the assessed systemic risk of each G-SII. The HLA reflects a more macroprudential perspective than the BCR, which is more microprudential in focus. Consequently, the levels and relativities of risk assessments may differ from those that may be taken from a BCR perspective.
76. Therefore, the differing level of overall systemic riskiness of G-SIIs is picked up through the use of a number of buckets into which G-SIIs are allocated.
77. The set of factors within the buckets is to be read as a package, and not as a set of independent factors. They represent an overall assessment and balance between a number of differing criteria as discussed in section 4.2. This is particularly the case with the Low bucket since the Mid and High buckets are developed based on this bucket. Thus, if one factor is changed then the overall impact on the outcomes and the relationships between factors needs to be considered.

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<sup>22</sup> The 0.04 boundary from the G-SII assessment methodology can be equivalently represented as 200% of the average score (of 0.02) over the full set of participating insurers. Similarly the 0.06 boundary can be represented as 300% of the average score. For clarity, the designation scores that lead to a G-SII being put into the Low, Mid and High buckets are bucket are [0, 0.04), [0.04, 0.06), and [0.06,1.00) respectively.

78. In coming to its views on the relativity of the factors within and between the buckets, the IAIS also considered the cumulative factors that would be applied to the underlying exposures in the BCR (noting that the HLA required capital formula applies its factors to the BCR<sub>2015</sub> required capital outcomes, and not to the underlying exposure used in obtaining the BCR<sub>2015</sub> required capital amounts).
79. The IAIS has determined that the HLA factors applied to the BCR<sub>2015</sub> required capital for Traditional Life insurance, Traditional Non-Life insurance and Assets should be the same. It is deemed that their BCR<sub>2015</sub> required capital component reflects the same level of risk in the context of systemic risk.
80. The degree of additional emphasis on NT and NI activities (and components of the BCR) is a key consideration in the HLA design. NT and NI activities of G-SIIs are regarded as those most likely to cause or amplify systemic risk events. Accordingly, it is appropriate for such activities to be given greater weight in the HLA formula. However, as indicated previously, other activities conducted by G-SIIs, as reflected in the G-SII Assessment Methodology indicators, may also cause or amplify systemic risk.
81. The IAIS has determined that the HLA factor applied to the BCR<sub>2015</sub> required capital for NT should be two times that applied in the case of Traditional Insurance and Assets as this relativity is regarded as achieving the most appropriate balance between risk sensitivity, complexity and dispersion.
82. The IAIS has determined that the HLA factor applied to the BCR<sub>2015</sub> required capital for NI-RB should be the linked to the HLA factor applied to G-SIBs in the lowest banking bucket. This is a circumstance in which a current global sectoral requirement from a non-insurance sector is reflected in the insurance sector's HLA required capital amount. The decision to reflect banking sector outcomes leads to different approach to determine the factors to be used in the higher buckets (above the Low bucket).
83. The IAIS has decided that it is appropriate to apply the level of HLA from the lowest banking bucket (for G-SIBs) to the Mid Bucket. Then, reflecting the overall approach of factors in the Mid bucket being 50% higher than those in the Low bucket, the IAIS determined the factor for the Low Bucket. In terms of the High bucket the IAIS has followed the banking bucketing approach and applied the banking HLA factor from the second lowest banking bucket.

The specific outcomes of this are that, for NI–RB:

- The HLA factor for the Mid bucket is 12.5%. This follows from the lowest banking bucket having a 1% of RWA uplift on an 8% RWA base (1 of 8 is 12.5%).
- The HLA factor for the Low bucket is then 12.5% divided by 1.5. This gives 8.33%, which is rounded to 8.5%.
- The HLA factor for the High bucket is 18.75%. This follows from the second lowest banking bucket having a 1.5% of RWA uplift on a 8% RWA base (1.5 of 8 is 18.75%).

84. Once an insurer has been designated as a G-SII the question of whether its banking activities would have independently and separately led to it being designated as a G-SIB is not relevant. However, some recognition of the fact that regulated banking activities conducted by G-SIIs are not typically as large as those conducted by a G-SIB is warranted, so the lower factor in the Low bucket is appropriate.
85. The IAIS has determined that the HLA factor applied to the BCR required capital for NI-UB<sup>23</sup> should be linked to the HLA factors applied for regulated banking, but that it should take the regulated banking factors from the next highest bucket. That is, for the Low bucket the regulated banking factor from the Mid bucket is used, and the factor for the Mid bucket is taken from the High bucket for regulated banking. The factor for the High bucket is then based on the G-SIB factor in the next G-SIB bucket.
86. This step up in HLA factors for unregulated banking relative to regulated banking is a pragmatic way of reflecting the lack of risk mitigation through regulation in the unregulated banking sector.
87. The IAIS has determined that the HLA factor applied to the BCR<sub>2015</sub> required capital for NI-AUM should be the same as that applied to NT.
88. To avoid misinterpretation, it is noted that the HLA exposure for the NI-AUM charge is the BCR required capital obtained by multiplying the BCR factor by the 3 year average of gross income. In general it is considered unlikely that such gross income will exceed 1% of the assets under management. Consequently the HLA charge for assets under management is 2 – 3 basis points.<sup>24</sup>

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<sup>23</sup> For the purposes of BCR and HLA, 'Unregulated banking activities' are: financial activities that are conducted outside of a regulated insurance company or regulated banking subsidiary. Unregulated banking business is conducted from a subsidiary to which no regulatory capital requirement is applied. All financial activities conducted from unregulated entities should be included in unregulated banking business. For example, aircraft leasing carried out by a non-regulated subsidiary should be considered as unregulated banking. Activities that classify as shadow banking according to FSB's definition ([http://www.financialstabilityboard.org/publications/r\\_130829c.pdf](http://www.financialstabilityboard.org/publications/r_130829c.pdf)) should be considered unregulated banking activities, regardless of their legal form.

<sup>24</sup> A numerical example illustrates this. Assume 1,000 units of assets under management. Gross income is then taken as 10 units. The BCR<sub>2014</sub> charge is 12% of this, or 1.2 units. Note this 12% is provided by Basel II requirements and is not related to HLA Factors. The BCR<sub>Uplift</sub>, then contributes another 0.4 units. Using the Mid bucket HLA Factor of 12% then contributes, approximately, another 0.3 units. The total BCR+HLA charge is therefore just under 2 units compared to the 1,000 units of asset under management. This approximately 20 basis point charge can be considered relatively low (as shown by considering the impact of a unit pricing error of magnitude 30 to 50 basis points).

89. It is noted that the FSB, in cooperation with IOSCO and other relevant standard-setting bodies, have commenced work to develop within the SIFI policy framework the incremental policy measures needed to address the systemic risks posed by Non-Bank Non-Insurance (NBNI) SIFIs. In the interim, until outcomes from this work are available, the IAIS will continue to base its approach on that given in the BCR Document<sup>25</sup> for the BCR<sub>2014</sub>. If more appropriate globally comparable regulatory capital requirements are implemented, the IAIS will review them and consider their application to the BCR and HLA.
90. The IAIS has determined that the HLA factor applied to the BCR<sub>2015</sub> required capital for NI-O should be the same as that applied to NT. This maintains parity of treatment in terms of HLA required capital between the NI-AUM and NI-O sectors and the IAIS does not consider it appropriate to differentiate between them at this time.

#### 4.6 Relativity between HLA factors

91. The following table summarises the relativities between the factors in each bucket in Table 4.1. The HLA factors in the buckets are reproduced by multiplying the relativities by 6%, 9% and 13.5% for the Low, Mid and High buckets, respectively. These values follow from starting with 6% (from the Low bucket) and applying the factor of 1.5 to move up from one bucket to the next bucket as described in section 4.4.

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<sup>25</sup> That is, currently, the standard indicator method for addressing operational risk of asset management activities in Basel II (See Paragraph 654 of the Basel II Comprehensive Version <http://www.bis.org/publ/bcbs128.pdf>). Currently this is 12% of gross income from such activities, but may be reviewed by the BCBS.



**Table 4.2: Relativity between HLA factors in each bucket**

<b>BCR required capital exposure</b>	<b>Relativity between HLA factors</b>	<b>Comment</b>
$TL_{BCR}$ :	1	See paragraph 79
$TNL_{BCR}$ :	1	See paragraph 79
$A_{BCR}$ :	1	See paragraph 79
$NT_{BCR}$ :	2	See paragraph 81
$NI-RB_{BCR}$ :	1.4	See paragraph 83. Using the Low bucket, 8.5% / 6.0%, approximately 1.4
$NI-UB_{BCR}$ :	2.08	See paragraph 85. Using the Low bucket, 12.5% / 6.0%, approximately 2.08
$NI-AUM_{BCR}$	2	See paragraph 87
$NI-O_{BCR}$ :	2	See paragraph 90

92. Formulas for HLA required capital are given in Annex E.

#### 4.7 Assessing the HLA formula against the HLA Principles

93. The HLA formula was assessed against the HLA Principles as described below:

- HLA Principle 1 (Comparability): The HLA formula produces results which are comparable, since the exposure measures to which the formula is applied are the  $BCR_{2015}$  required capital amounts. The BCR was developed by the IAIS in 2014 to be a comparable measure of required capital across G-SIIs. As stated in the 2014 BCR document, the BCR serves as a comparable basis for the application of proposed HLA requirements.
- HLA Principle 2 (G-SII risks): The use of buckets, noting the Low and Mid buckets are currently populated, reflects all of the components of the G-SII designation process and the risks it captures. Increased emphasis on the NT and NI components of the BCR reflects all of the components of the BCR risks but with a higher weighting on those risks regarded as being more systemically important.
- HLA Principle 3 (Internalise costs): The HLA formula achieves a material degree of internalising costs.
- HLA Principle 4 (Resilient): The HLA structure and factors are intended to work effectively in a stressed environment, especially reflecting the volatility of capital resources. This feature will be assessed carefully during annual field testing, including consideration of results from the application of stresses to relevant components of the balance sheet.
- HLA Principle 5 (Going concern): The  $BCR_{2015}$  achieves a “going concern” level of required regulatory capital while a lower  $BCR_{Uplift}$  would be less likely to achieve that level.

- HLA Principle 6 (Quality of capital): The HLA structure requires the highest quality of capital to cover the HLA required capital.
- HLA Principle 7 (Pragmatic): The use of designation scores and the BCR components in the HLA formula strikes an appropriate balance between granularity and simplicity without the need for ceilings or floors.
- HLA Principle 8 (Consistent): The factors are expected to produce consistent HLA amounts over time and over the range of insurance and non-insurance entities they will need to cover. The HLA formula produces outcomes that are more consistent than if higher emphasis is placed on NT and NI as the full  $BCR_{2015}$  is more comparable between G-SIIs than the NT and NI components of the  $BCR_{2015}$  alone.
- HLA Principle 9 (Transparent): The HLA structure and factors provide a transparent framework for G-SIIs and other interested parties, within the current confidentiality constraints, at least to the same degree of transparency from the G-SII assessment methodology that is used for allocation of G-SIIs to buckets.
- HLA Principle 10 (Refinement): The HLA structure and factors provide a flexible framework that could be easily refined over time. For example, it provides the capacity to be recalibrated to a higher or lower level of emphasis on NT and NI, or to adjust for any potential revisions to the G-SII assessment methodology (especially in relation to the scoring system and allocation of G-SIIs to buckets) or NT and NI definitions.

#### 4.8 Impact of $BCR_{Uplift}$ and HLA

94. Table 4.3 provides some examples of the impact of the rescaling on a selection of factors due to the BCR and HLA. The full list of the rescaled  $BCR_{2014}$  factors after the  $BCR_{Uplift}$  and HLA is given in Annex D. These rescaled factors reflect the cumulative impact, in terms of required capital, of the  $BCR_{2015}$  and the HLA when applied to the underlying BCR exposures (as distinct to the  $BCR_{2015}$  required capital amounts determined by the BCR calculation).

**Table 4.3: Examples of cumulative uplifted BCR and HLA Factor values for insurance activities**

<b>BCR segment</b>	<b>BCR proxy measure for risk exposure</b>	<b>BCR<sub>2014</sub> Factor value (<math>\alpha_{\text{BCR } 2014} = 1.00</math>)</b>	<b>BCR Factor value (<math>\alpha_{\text{BCR}} = 1.33</math>)</b>	<b>Cumulative BCR and HLA Factor (Mid Bucket)</b>
<b>Traditional Life (TL)</b>				
Participating products	Net Current Estimate	0.60%	0.80%	0.87%
<b>Traditional Non-life (TNL)</b>				
Property	Premium Measure	6.3%	8.4%	9.15%
<b>Non-Traditional (NT)</b>				
Variable annuities	Notional Value	1.2%	1.6%	1.89%
<b>Assets (A)</b>				
Credit - investment grade	Fair Value	0.70%	0.93%	1.015%

## 5 HLA capital resources

### 5.1 BCR and HLA capital resources

95. The IAIS has determined that, for the purposes of the development of the HLA, the definitions of Core and Additional capital used for BCR purposes will apply to the HLA. That is, the quality of capital resources required to support the  $BCR_{Uplift}$  will be the same as for the  $BCR_{2014}$ . In particular, qualifying Additional capital cannot exceed 50% of  $BCR_{2015}$  required capital.
96. The HLA is to be met by the highest quality capital. In the context of the above discussion this means Core capital as defined for BCR purposes. Annex C provides further detail on the capital resources that qualify as Core and Additional for BCR and HLA purposes.<sup>26</sup>
97. The BCR framework contains a limit on the amount of Additional capital resources that can be used to meet BCR required capital. That is, qualifying Additional capital cannot exceed 50% of BCR required capital.
98. For those G-SIIs that reach the limit in terms of use of Additional capital to meet BCR required capital, there is an incentive to raise Core capital as opposed to Additional capital since doing so will have a positive impact on the BCR capital ratio. Raising further Additional capital once the limit has been reached will not improve the BCR capital ratio.
99. The IAIS will also consider how, prior to HLA implementation, a transition of existing financial instruments may be most appropriately addressed.
100. When the HLA is reviewed to change its foundation to the ICS, the capital resources for HLA purposes will also be reviewed. The annual review process for BCR and HLA, which will commence in 2016, may also lead to some refinement of the capital resources for BCR and HLA purposes.

### 5.2 Transition period for Uplifts

101. In section 3.4 it was indicated there is a three year transition period for reporting the uplifts from the  $BCR_{2014}$  to the  $BCR_{2015}$  and that during the transition period the calculation of the HLA Insurance component and the HLA NI component will reflect the full amounts computed for the  $BCR_{2015}$ .
102. The reporting of capital resources to support the BCR and the HLA will continue to reflect the total of the capital resource a G-SII has available, but the HLA ratio will be computed to reflect the transition period required capital amounts.

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<sup>26</sup> Annex C of this document is not identical to Annex D of the BCR Document. Changes have been made to improve clarity reflecting experience from IAIS field testing. There are no changes of substance or intent. In the case of a perceived difference in meaning, the meaning from Annex C of this document should be used.

## 6 Impact on G-SIIs

### 6.1 Computing BCR and HLA required capital amounts

103. The average BCR required capital, over the set of G-SIIs (as designated in 2013 and 2014) is, by design, approximately the same as the average PCR. It is acknowledged that PCRs are not considered to be sufficiently globally comparable to use as a foundation for HLA. This is illustrated by looking at the ratios of  $BCR_{2015}$  and  $BCR_{2015}$  plus HLA to PCR, that is,  $BCR_{2015}$  required capital (or  $BCR_{2015}+HLA$  required capital) divided by PCR.<sup>27</sup>

Averaging over the 2013 and 2014 results, the ratio of  $BCR_{2015}$  required capital to PCR is 100% for G-SIIs and 90% for all Volunteers (these numbers are rounded to the nearest 5%).

104. Averaging over the 2013 and 2014 results, the ratio of  $(BCR_{2015} + HLA)$  required capital to PCR is 110% for G-SIIs and 100% for all Volunteers (these numbers are rounded to the nearest 5%). For HLA calculations all Volunteers that are not G-SIIs have been treated as if they are in the lowest HLA bucket. Note the calculations for “All Volunteers” are illustrative since neither the BCR nor the HLA are intended to be applied to insurers that are not G-SIIs.

105. For specific  $BCR_{2014}$  required capital calculations, the factors and the exposures to which they apply are provided in Annex D. These match those included in the BCR Document. Note these BCR factors do not include the uplift required to bring the  $BCR_{2014}$  up to the  $BCR_{2015}$ .

### 6.2 HLA required capital dispersion between G-SIIs

106. The relative impacts of  $BCR_{Uplift}$  and HLA in terms of the  $BCR_{2014}$  are, on average over the set of designated G-SIIs, approximately as follows:

- $BCR_{Uplift}$  is approximately 33% of  $BCR_{2014}$ .
- HLA is approximately 13% (10% divided by 75%) of  $BCR_{2014}$ .

107. It is useful to provide some examples of the impact of the HLA required capital amount. To ensure confidentiality, calculations are made for hypothetical G-SIIs. Specifically, the outcomes computed do not relate to any actual G-SII.

108. These hypothetical examples of hypothetical G-SIIs, in terms of their BCR required capital exposures as used for the HLA calculations, are provided in Annex F. These are all presented as a proportion of the  $BCR_{2015}$ . Comments on results from these calculations include:

- Results in the Low bucket range from approximately 6.5% to 9.5% of  $BCR_{2015}$ .

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<sup>27</sup> For clarity, note the BCRs and PCRs are at a group level.

- Results in the Mid bucket range from approximately 10.0% to 14.0% of BCR<sub>2015</sub>.
- Over the two populated buckets results vary from approximately 6.5% to approximately 14% of the BCR<sub>2015</sub>.
- Results in the High bucket range from approximately 14.5% to 20.0% of BCR<sub>2015</sub>. Note that the High bucket is empty (based on G-SII designations).
- There is no “cross-over” between the Low and Mid buckets, or between the Mid and High buckets.

### 6.3 BCR+HLA Ratio

109. The combined BCR and HLA required regulatory capital status of a G-SII is captured by its BCR+HLA ratio:

$$\text{BCR+HLA Ratio} = \frac{\text{Total Qualifying capital resources (for BCR and HLA)}}{\text{BCR}_{2015} + \text{HLA required capital}}$$

The Total qualifying capital resources for the BCR and HLA are:

Core capital + min (Additional capital, 50% BCR).

110. Averaging over the 2013 and 2014 results, the BCR+HLA Ratio is 260% for G-SIIs and 305% for all Volunteers (these numbers have been rounded to the higher 5%). As above, for HLA calculations all Volunteers that are not G-SIIs have been treated as if they are in the lowest HLA bucket.

## 7 Operational matters

### 7.1 HLA interaction with other IAIS reviews

111. The HLA has been developed on the basis of the current established and applied G-SII Assessment Methodology and the definitions of NT and NI activities.
112. The IAIS is currently reviewing some aspects of the G-SII Assessment Methodology and the definitions of NT and NI activities.
113. If future changes are made to the G-SII Assessment Methodology and/or the definitions of NT and NI activities that impact the HLA, these changes will be reviewed and amendments to the HLA design incorporated as appropriate.

### 7.2 BCR and HLA review process

114. The design and calibration of the BCR will be monitored and reviewed by the IAIS and, if appropriate, refined. This review and refinement process will be informed by field testing, which is scheduled to continue up to and including 2018.
115. The review and refinement process will include (but not be limited to) consideration of:
  - Impact of outcomes from review of NT and NI activities.
  - Impact of outcomes from review of G-SII Assessment Designation Methodology, including the determination of buckets used for HLA required capital purposes.
  - How appropriate transitions for existing financial instruments may be managed in terms of their allocation as Core or Additional capital resources for BCR and HLA purposes.
  - Review of analysis from ongoing IAIS field testing.
  - Review of interaction between  $BCR_{Upfit}$  and HLA with sectoral capital requirements from non-insurance sectors, including both regulated and unregulated banking activities, assets under management and NI-O activities.
  - Assessment of the appropriateness of the BCR and HLA factors and their relativities.
  - HLA Principle 4 (Resilience) and the behaviour of the BCR and HLA in varying economic conditions, including assessment of potential volatility and procyclicality.
116. The review and refinement process used for the HLA will be the same as that used for the BCR as they are interlinked and should be considered together. Consequently, the impact of any changes made should be considered in the overall context of the BCR and HLA.
117. The IAIS intends to review the parameters for the BCR and HLA required capital amounts on an annual basis and recommend any changes, if these are deemed necessary.

### **7.3 HLA reporting process**

118. The same confidential reporting process as used for BCR will be applied for the HLA.

### **7.4 Field testing**

119. The development of the HLA has been informed by field testing in 2014 and 2015.

120. Thirty-four volunteer insurance groups (including all 9 G-SIIs designated in 2013 and 2014) participated in the 2014 and 2015 field testing exercise.<sup>28</sup> The data collected in both years (reflecting end of financial year dates in 2013 and 2014 respectively) was used to inform the HLA design, specific factors and calibration level.

121. Future BCR and HLA refinements may also be informed by field testing in 2016 and following years.

### **7.5 HLA Interaction with the ICS**

122. The IAIS has indicated that when the ICS is developed, the HLA will be reviewed and its foundation changed from the BCR to the ICS. This may then require a review of the HLA, both in terms of its calibration and structure.

123. The current IAIS timeline to review the HLA, for the purpose of replacing the BCR with the ICS as its foundation, is subsequent to the completion of the development of the ICS in 2019.

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<sup>28</sup> The group of volunteers was not the same in 2014 and 2015, however in both years the group participated in the exercise covered a wide range of products and geographical markets.



**Annex A: Glossary**

<b>Abbreviation</b>	<b>Meaning</b>
Additional capital	A category of capital resources as defined for BCR and HLA purposes
BCBS	Basel Committee on Banking Supervision (also Basel Committee)
BCR	Basic Capital Requirements
BCR <sub>2015</sub>	Refers to the current BCR required capital
BCR <sub>2014</sub>	The BCR required capital as specified in the BCR Document of October 2014
BCR Document	The document published by the IAIS on 23 October 2014 titled <i>Basic Capital Requirements for Global Systemically Important Insurers</i>
BCR Capital Resources	This is the amount of qualifying capital resources for BCR purposes
BCR Required Capital	This is the amount of required capital to satisfy the BCR
BCR <sub>Uplift</sub>	The uplift applied to the previous specification of the BCR required capital, BCR <sub>2014</sub> , to get to the current BCR required capital. That is: $BCR_{2015} = BCR_{2014} + BCR_{Uplift}$
ComFrame	The IAIS Common Framework for the Supervision of Internationally Active Insurance Groups
Core capital	A category of capital resources as defined for BCR and HLA purposes
FSB	Financial Stability Board
G-SIFI	Global Systemically Important Financial Institution
G-SIB	Global Systemically Important Bank
G-SII	Global Systemically Important Insurer
G-SII Policy Measures	The document published by the IAIS in July 2013 titled <i>Global Systemically Important Insurers: Policy Measures</i>
G20	Group of Twenty Countries
HLA	Higher Loss Absorbency
HLA Required Capital	This is the amount of required capital to satisfy the HLA

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IAIG	Internationally Active Insurance Group
IAIS	International Association of Insurance Supervisors
IASB	International Accounting Standards Board
ICPs	IAIS Insurance Core Principles
ICS	Risk-based global Insurance Capital Standard
NI	Non-Insurance, as specified in the BCR Document
NT	Non-Traditional insurance as specified in the BCR Document
NTNI	Non-Traditional Insurance and Non-Insurance combined
PCR	Prescribed Capital Requirement as defined by ICP 17
RWA	Risk Weighted Assets as specified by the BCBS for Basel III standard purposes

## Annex B: HLA Principles

A set of ten HLA Principles to support the development of the HLA was published by the IAIS in September 2014.<sup>29</sup> These, with their explanatory comments, are reproduced below:

*“The following principles will be followed in the development of Higher Loss Absorbency (HLA) for Global Systemically Important Insurers (G-SIIs).*

**HLA Principle 1 – Comparability.** *Outcomes should be comparable across jurisdictions.*

*This implies the need to minimise distortions, including those arising from differing levels of conservatism included in valuation or other relevant processes or requirements. The level of discretions that may be applied or introduced should be minimised across jurisdictions and over time. ‘Comparable’ implies results should be similar and consistent across jurisdictions, but does not require that they be identical.*

**HLA Principle 2 – G-SII risks.** *The HLA should reflect the drivers (but is not restricted to only those drivers) of the assessment of G-SII status.*

*These drivers are indicative of the risks intended to be addressed by the HLA. The HLA should reflect individual characteristics of each G-SII.*

**HLA Principle 3 – Internalise costs.** *The failure or distress of a G-SII may result in costs to the financial system and overall economy. The HLA should internalise some of these costs that are otherwise external to that G-SII.*

*G-SIIs should be required by their group-wide supervisors to hold higher levels of regulatory capital than would be the case if they were not designated as G-SIIs. The HLA should be set at a level that offsets any advantage that may be expected to arise from the G-SII designation. Through internalising external costs, HLA may lead to a reduction in systemic activities as they become more expensive and therefore less attractive.*

**HLA Principle 4 – Resilient.** *HLA should work, and remain valid, in a wide variety of economic conditions (including a stressed macro environment).*

*In order to reflect the impact of major drivers of economic experience that are relevant to the scope of HLA, the adopted approaches should be able to be tested against historic data and circumstances.*

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<sup>29</sup> See <http://iaisweb.org/index.cfm?event=getPage&nodeId=25233> and then the “Financial Stability & Macroprudential Policy & Surveillance” section under the “Supervisory Material” tab.

**HLA Principle 5 – Going concern.** *The HLA, and its foundation, assume G-SIIs are ‘going concerns’.*

*In practice this requires that the capital requirement given by the sum of the foundation requirement and the HLA requirement is set reflecting a ‘going concern’ perspective, not a ‘gone concern’ perspective. The current foundation for the HLA is the BCR, but it is intended to replace the BCR with the ICS when the ICS is developed.*

**HLA Principle 6 – Quality of capital.** *The HLA capital requirement is to be met by the ‘highest quality capital’.*

**HLA Principle 7 – Pragmatic.** *The design of the HLA needs to be pragmatic and practical, with an appropriate balance between granularity and simplicity.*

*The form of presentation of the HLA, focusing on meaningful communication to external parties, should be practical yet sufficiently granular for the results to be fit for purpose. The HLA should utilise the minimum number of parameters and data requirements while attaining valid and robust outcomes with a focus on material issues.*

**HLA Principle 8 – Consistent.** *The structure of the HLA should be consistent and be applicable over the range of insurance and non-insurance entities it will need to cover and over time.*

**HLA Principle 9 – Transparent.** *The level of transparency, particularly with regard to the final results provided and the use of public data, should be optimised.*

**HLA Principle 10 – Refinement.** *The HLA will be refined in light of experience and data gathered by the IAIS in the course of Field Testing exercise.”*

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## Annex C: Qualifying capital resources<sup>30</sup>

1. For HLA and BCR purposes, the IAIS defines Qualifying capital resources as either Core or Additional.
2. The G-SII's Core capital is comprised of qualifying financial instruments and capital elements other than financial instruments that contribute to financial strength, absorb losses both on a going-concern and winding-up basis and otherwise contribute to survival through periods when the G-SII is under stress.
3. The G-SII's additional capital is comprised of qualifying financial instruments and capital elements other than financial instruments that protect policyholders in winding-up. The key characteristics of capital instruments that qualify as additional capital are subordination and availability to absorb losses in winding-up.
4. Qualifying capital resources include the following:

### Financial Instruments

5. Financial instruments are classified as Core capital if all of the following criteria are met:
  - The instrument is fully paid-up and available<sup>31</sup> to absorb losses.
  - The instrument is subordinate to the rights of policyholders in an insolvency or winding-up.
  - The instrument is perpetual (i.e. it does not have a maturity date and it does not contain a step-up or another incentive to redeem).
  - The instrument is only redeemable at the option of the issuer after a minimum of five years from the date of issue (i.e. the instrument is not retractable by the holder) and the redemption is subject to prior supervisory review or approval.
  - The G-SII has full discretion at all times to cancel distributions (i.e. dividends and coupon payments are non-cumulative). Non-payment is, therefore, not an event of default.
  - The instrument does not have fixed serving costs (e.g. fixed interest payments and principal repayments).
  - The instrument is free from charges, claims or other hindrances and does not include a right by the holder to receive compulsory payments.

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<sup>30</sup> This Annex is not identical to Annex D of the BCR Document of October 2014. Changes have been made to improve clarity reflecting experience from IAIS field testing. There are no changes of substance or intent. In the case of a perceived difference in meaning, the meaning from this Annex should be used.

<sup>31</sup> Availability and subordination may be encumbered if there is any arrangement or connected transaction that prevents the financial instrument from meeting the criteria.

- The instrument does not have distributions that are tied or linked to the credit standing or financial condition of the G-SII or another related entity, such that those distributions may accelerate insolvency.
  - The instrument is neither undermined nor rendered ineffective by encumbrances (in particular, policyholder priority order should not be compromised by guarantees or security arrangements given by either the G-SII or another related entity for the benefit of investors).
6. Where financial instruments do not meet the criteria for classification as Core capital, they may be classified as Additional capital if all of the following criteria are met:
- The instrument is fully paid-up<sup>32</sup> and available to absorb losses.
  - The instrument is subordinate to the rights of policyholders in an insolvency or winding-up.
  - The instrument has an initial maturity of at least five years, where the instrument's limited protection as it nears maturity is captured either:
    - By the notional amount of the instrument being amortised on a straight-line basis in the final five years to maturity; or
    - Due to the existence of a requirement for the G-SII to suspend repayment or redemption if it is in breach of its capital requirement or would breach it if the instrument is repaid or redeemed.
  - Redemption of the instrument is subject to review or approval from the relevant supervisor.
  - The instrument does not have distributions that are tied or linked to the credit standing or financial condition of the G-SII or another related entity, such that those distributions may accelerate insolvency.
  - The instrument is neither undermined nor rendered ineffective by encumbrances (in particular, policyholder priority order should not be compromised by guarantees or security arrangements given by either the G-SII or another related entity for the benefit of investors).
  - The instrument does not give holders rights to accelerate the repayment of future scheduled principal or coupon payments, except in bankruptcy, insolvency, winding-up or liquidation.
7. G-SIIs will only be permitted to include non-paid-up capital items (e.g. unpaid preference shares, unpaid subordinated debt, letters of credit, guarantees) in additional capital where those items contain legally binding commitments that increase the amount of qualifying paid-up capital at the discretion of the G-SII, at any time. Non-paid-up capital items are limited to an amount not greater than 10% of BCR. Non-paid-

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<sup>32</sup> A proportion of Additional capital may be non-paid-up. See paragraph 7 below.

up capital items that qualify as additional capital are subject to supervisory review or approval.

### **Elements other than financial instruments**

8. Core capital elements other than financial instruments may include, for example:
  - Retained earnings
  - Surplus funds
  - Contributed surplus
  - Paid-up initial funds (e.g. mutual entities)
  - Non-participating account (e.g. mutual entities)
  - Participating policyholders' equity or account (e.g. joint stock entities)
  - Accumulated Other Comprehensive Income (AOCI)
  - Margins Over Current Estimates (MOCE)/Reserves included in GAAP equity or otherwise allocated to equity.
9. Capital instruments issued by a fully consolidated regulated financial subsidiary of the G-SII to third-party investors (minority interests) may be recognised as consolidated Core capital of the G-SII only if the instrument meets or exceeds all of the criteria for classification as Core capital.
10. Capital instruments issued by a fully consolidated regulated financial subsidiary of the G-SII to third-party investors may be recognised as consolidated Additional capital of the G-SII only if the instrument meets or exceed all of the criteria for classification as Additional capital.

### **Adjustments, exclusions and deductions**

11. The following items are excluded or deducted from Core capital:<sup>33</sup>
  - a) Goodwill.
  - b) Intangible assets, including computer software intangibles.
  - c) Each net defined benefit pension plan asset that cannot be easily and promptly accessed for the own use and on-going operations of the G-SII.
  - d) Deferred Tax Assets (DTAs) that rely on the future profitability of the G-SII. DTAs may be netted with associated deferred tax liabilities (DTLs) only if the DTAs and

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<sup>33</sup> Items (a) to (c) should be net of associated DTLs that would be extinguished if the item becomes impaired or derecognised under the valuation approach. DTLs are permitted to be netted against DTAs provided that they exclude amounts that have been netted against items (a) to (c).

- DTLs relate to taxes levied by the same taxation authority and offsetting is permitted by the relevant taxation authority.
- e) Reciprocal cross holdings, arranged either directly or indirectly between financial institutions and that artificially inflate the Core capital position of the G-SII.
  - f) Direct investments in own shares and in own Core capital financial instruments.
  - g) Reinsurance assets arising from arrangements deemed to constitute non-qualifying reinsurance or arrangements that are either not legally binding or not executed within a six-month grace period from the effective date of reinsurance coverage. Non-qualifying reinsurance refers to arrangements:
    - With entities providing reinsurance that are neither regulated nor subject to risk-based solvency supervision, including appropriate capital requirements; or
    - That do not provide a sufficient transfer of risk.
  - h) Total secured (encumbered) assets in excess of the sum of:
    - The value of the G-SII's on-balance sheet liabilities secured by the (encumbered) assets; plus
    - The value of the G-SII's incremental supervisory capital requirements for liabilities secured by the (encumbered) assets; plus
    - The value of the G-SII's incremental supervisory capital requirements for secured (encumbered) assets.
  - i) No deduction is required for encumbered assets relating to off-balance sheet securities financing transactions (e.g. securities lending and borrowing, repos and reverse repos) that do not give rise to any liability on the balance sheet.
12. The following items are excluded or deducted from Additional capital:
- Reciprocal cross holdings, arranged either directly or indirectly between financial institutions and which artificially inflate the Additional capital position of the G-SII
  - Direct investments in own additional capital financial instruments.
13. The following items, though excluded or deducted from Core capital, are added back or included in Additional capital:
- Realisable value of net DTAs that rely on future profitability
  - Realisable value of computer software intangibles
  - 50% of each net pension plan asset.



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## Annex D: Cumulative BCR factors by BCR segment

The following tables set out the cumulative impact of the  $BCR_{Uplift}$  and the HLA on each segment for the BCR calculation. Table D.1 reflects the Low HLA bucket. Table D.2 reflects the Mid HLA bucket. The High bucket is not shown (it is currently unpopulated). The underlying BCR Factors are not changed from those published in the BCR Document. The cumulative factors, moving to the right across the tables, show the impact of first the  $BCR_{Uplift}$  and then the additional impact of the HLA.

The BCR+HLA factor are the full factors (and do not reflect any transition considerations) that would be applied to the underlying BCR exposure (the 'BCR proxy measure for risk exposure' given in the tables) in order to compute the BCR+HLA required capital attributable to the specific BCR segment.

Please note that the NI banking regulated result is not factor driven. It is the maximum of two numbers that reflect current banking sectoral requirements (for each G-SII). The following tables have been constructed assuming the outcome of this maximum is the 3% Leverage Ratio amount.

Please also note that numbers in the tables have been rounded to avoid the impression of spurious accuracy.

**Table D.1: Cumulative impact of BCR<sub>Uplift</sub> and HLA on underlying BCR Factors. HLA Low Bucket**

BCR segment	BCR proxy measure for risk exposure	BCR <sub>2014</sub> Factor value ( $\alpha_{BCR2014} = 1.00$ )	BCR Factor value ( $\alpha_{BCR} = 1.33$ )	HLA Low Bucket uplift%	HLA component (BCR Factor value * HLA uplift%)	BCR+HLA factors (BCR Factor Value +HLA Component)
<b>Traditional Life (TL)</b>						
Protection life	Net Amount At Risk	0.06%	0.080%	6.0%	0.005%	0.085%
Participating products	Net Current Estimate	0.60%	0.80%	6.0%	0.05%	0.85%
Annuities	Net Current Estimate	1.2%	1.6%	6.0%	0.10%	1.7%
Other life	Net Current Estimate	0.60%	0.80%	6.0%	0.05%	0.85%
<b>Traditional Non-life (TNL)</b>						
Property	Premium Measure	6.3%	8.4%	6.0%	0.50%	8.9%
Motor	Net Current Estimate	6.3%	8.4%	6.0%	0.50%	8.9%
Casualty	Net Current Estimate	11.3%	15.0%	6.0%	0.90%	16.0%
Other non-life	Net Current Estimate	7.5%	10.0%	6.0%	0.60%	10.6%
<b>Non-Traditional (NT)</b>						
Variable annuities	Notional Value	1.2%	1.6%	12.0%	0.19%	1.8%
Mortgage insurance	Risk in Force	4.0%	5.3%	12.0%	0.64%	6.0%
GICS & Synthetic GICS	Notional Value	1.1%	1.46%	12.0%	0.18%	1.64%
Other non-traditional	Net Current Estimate	1.3%	1.73%	12.0%	0.21%	1.94%
<b>Assets (A)</b>						
Credit - investment grade	Fair Value	0.70%	0.93%	6.0%	0.06%	1.0%
Credit - non investment grade	Fair Value	1.8%	2.4%	6.0%	0.14%	2.54%
Equity, real estate & non-credit investment assets	Fair Value	8.4%	11.2%	6.0%	0.67%	11.8%
<b>Non-Insurance</b>						
Banking – regulated (See note above)	Leverage ratio exposure measure	3.0%	3.0%	8.5%	0.25%	3.25%
Banking – unregulated	Leverage ratio exposure measure	3.0%	4.0%	12.5%	0.50%	4.5%
Assets under management	3 year average gross income	12.0%	16.0%	12.0%	1.9%	17.9%

**Table D.2: Cumulative impact of BCR<sub>Uplift</sub> and HLA on underlying BCR Factors. HLA Mid Bucket**

BCR segment	BCR proxy measure for risk exposure	BCR <sub>2014</sub> Factor value ( $\alpha_{BCR2014} = 1.00$ )	BCR Factor value ( $\alpha_{BCR} = 1.33$ )	HLA Mid Bucket uplift%	HLA component (BCR Factor value * HLA uplift%)	BCR+HLA factors (BCR Factor Value +HLA Component)
<b>Traditional Life (TL)</b>						
Protection life	Net Amount At Risk	0.06%	0.080%	9.0%	0.007%	0.087%
Participating products	Net Current Estimate	0.60%	0.80%	9.0%	0.07%	0.87%
Annuities	Net Current Estimate	1.2%	1.6%	9.0%	0.14%	1.74%
Other life	Net Current Estimate	0.60%	0.80%	9.0%	0.07%	0.87%
<b>Traditional Non-life (TNL)</b>						
Property	Premium Measure	6.3%	8.4%	9.0%	0.75%	9.15%
Motor	Net Current Estimate	6.3%	8.4%	9.0%	0.75%	9.15%
Casualty	Net Current Estimate	11.3%	15.0%	9.0%	1.35%	16.35%
Other non-life	Net Current Estimate	7.5%	10.0%	9.0%	0.90%	10.9%
<b>Non-Traditional (NT)</b>						
Variable annuities	Notional Value	1.2%	1.6%	18.0%	0.29%	1.89%
Mortgage insurance	Risk in Force	4.0%	5.3%	18.0%	0.96%	6.28%
GICS & Synthetic GICS	Notional Value	1.1%	1.46%	18.0%	0.26%	1.72%
Other non-traditional	Net Current Estimate	1.3%	1.73%	18.0%	0.31%	2.04%
<b>Assets (A)</b>						
Credit - investment grade	Fair Value	0.70%	0.93%	9.0%	0.084%	1.015%
Credit - non investment grade	Fair Value	1.8%	2.4%	9.0%	0.215%	2.61%
Equity, real estate & non-credit investment assets	Fair Value	8.4%	11.2%	9.0%	1.00%	12.2%
<b>Non-Insurance</b>						
Banking – regulated (See note above)	Leverage ratio exposure measure	3.0%	3.0%	12.5%	0.38%	3.38%
Banking – unregulated	Leverage ratio exposure measure	3.0%	4.0%	18.8%	0.75%	4.75%
Assets under management	3 year average gross income	12.0%	16.0%	18.0%	2.9%	18.9%

## Annex E: Formulas for capital requirements

### The BCR<sub>2014</sub> formula

1. The BCR<sub>2014</sub>, as specified in the IAIS BCR document, is:

$$BCR_{2014} = \alpha \left[ \sum_{i=1}^4 a_i TL_i + \sum_{i=1}^4 b_i TNL_i + \sum_{i=1}^4 c_i NT_i + \sum_{i=1}^3 d_i A_i \right] + \sum_{i=1}^n NI_i$$

where:

- $\alpha$  (alpha) is the scalar (set at 100% in 2014) to determine the overall BCR level.
  - $a_i$ ,  $b_i$ ,  $c_i$ , and  $d_i$  represent the BCR factors applied to the exposures.
  - $TL_i$ ,  $TNL_i$ ,  $NT_i$ , and  $A_i$  represent the exposures where:
    - $TL_i$  represent Traditional Life liability exposures
    - $TNL_i$  represent Traditional Non-Life liability exposures
    - $NT_i$  represent Non-Traditional liability exposures
    - $A_i$  represent Asset exposures.
  - $NI_i$  reflect the charges for non-insurance activities. These charges may be provided by sectoral rules – for example, Basel Accord requirements, established by the Basel Committee on Banking Supervision (BCBS).
2. The development of the HLA requires several formulas, for BCR<sub>2014</sub>, BCR<sub>Uplift</sub>, BCR and HLA. It is thus necessary to label parameters and components of formulas unambiguously. Further, while based on the BCR<sub>2014</sub> formula, the BCR<sub>Uplift</sub>, BCR and HLA formulas focus at a higher level than the BCR<sub>2014</sub> formula. In particular, the BCR<sub>2014</sub> formula reflects factors and exposures at the level of the individual BCR segments, as specified in the BCR Document. The other formulas focus at the higher level of Traditional Life (TL), Traditional Non-Life (TNL), Assets (A), Non-Traditional (NT) and the components of NI.
3. Items in formulas need to carry several pieces of information, the formula they refer to, and the component of the formula they are (signifying the role they play in the formula). For example, the summary exposure relating to Traditional Life insurance a formula is  $\sum_{i=1}^4 a_i TL_i$ . The start of its label is TL. To clarify that a TL is part of the BCR<sub>2014</sub> Formula, its label need to include this information. A precise label is therefore  $TL_{BCR 2014}$ .
4. Using this approach, the BCR<sub>2014</sub> formula can be written as:

$$BCR_{2014} = \alpha_{BCR 2014} * [ TL_{BCR 2014} + TNL_{BCR 2014} + A_{BCR 2014} + NT_{BCR 2014} ] \\ + NI-AUM_{BCR 2014} + NI-O_{BCR 2014} \\ + NI-RB_{BCR 2014} + NI-UB_{BCR 2014} ]$$

where:

- $\alpha_{\text{BCR}_{2014}}$  is the scalar to determine the overall  $\text{BCR}_{2014}$  level.  $\alpha_{\text{BCR}_{2014}} = 1.00$
- $\text{TL}_{\text{BCR}_{2014}} = \sum_{i=1}^4 a_i \text{TL}_i$
- $\text{TNL}_{\text{BCR}_{2014}} = \sum_{i=1}^4 b_i \text{TNL}_i$
- $\text{NT}_{\text{BCR}_{2014}} = \sum_{i=1}^4 c_i \text{NT}_i$
- $\text{A}_{\text{BCR}_{2014}} = \sum_{i=1}^3 d_i \text{A}_i$
- $\text{NI-RB}_{\text{BCR}_{2014}}$  is the  $\text{BCR}_{2014}$  required capital for Regulated banking
- $\text{NI-UB}_{\text{BCR}_{2014}}$  is the  $\text{BCR}_{2014}$  required capital for Unregulated banking
- $\text{NI-AUM}_{\text{BCR}_{2014}}$  is the  $\text{BCR}_{2014}$  required capital for Assets Under Management
- $\text{NI-O}_{\text{BCR}_{2014}}$  is the  $\text{BCR}_{2014}$  required capital for Other NI business.

Note that:

- $\text{TL}_{\text{BCR}_{2014}}$ ,  $\text{TNL}_{\text{BCR}_{2014}}$ ,  $\text{NT}_{\text{BCR}_{2014}}$  and  $\text{A}_{\text{BCR}_{2014}}$  do not now refer directly to the underlying exposure used for in the  $\text{BCR}_{2014}$  formula, but to composite exposures of  $\text{BCR}_{2014}$  required capital amounts. These  $\text{BCR}_{2014}$  required capital amounts themselves are determined using a factor-based approach as specified in the BCR Documents.
- $\text{NI-RB}_{\text{BCR}_{2014}}$ ,  $\text{NI-UB}_{\text{BCR}_{2014}}$ ,  $\text{NI-AUM}_{\text{BCR}_{2014}}$  and  $\text{NI-O}_{\text{BCR}_{2014}}$  are also required capital amounts. They are specified separately as their derivations may differ.

### **$\text{BCR}_{\text{Uplift}}$ formulas**

5. The approach used for the  $\text{BCR}_{2014}$  formula can be used to describe other formulas ( $\text{BCR}_{\text{Uplift}}$ ,  $\text{BCR}_{2015}$  and HLA) unambiguously through changing the subscript '2014' (to 'Uplift' or '2015' respectively).
6. The values of the  $\text{TL}_{\text{BCR}_{2014}}$ ,  $\text{TNL}_{\text{BCR}_{2014}}$ ,  $\text{NT}_{\text{BCR}_{2014}}$  and  $\text{A}_{\text{BCR}_{2014}}$  depend on the values of the factors,  $a_i$ ,  $b_i$ ,  $c_i$ , and  $d_i$ , as specified in the BCR document. These  $\text{BCR}_{2014}$  factors are not changed in this document.
7. The  $\text{BCR}_{\text{Uplift}}$  is, essentially achieved by increasing the  $\text{BCR}_{2014}$  scalar  $\alpha$  (alpha) from 1.00 to 1.33. Using the approach shown in above, this gives the following formula for the  $\text{BCR}_{\text{Uplift}}$ :

$$\begin{aligned} \text{BCR}_{\text{Uplift}} = & 0.33 * [\text{TL}_{\text{BCR}_{2014}} + \text{TNL}_{\text{BCR}_{2014}} + \text{NT}_{\text{BCR}_{2014}} + \text{A}_{\text{BCR}_{2014}}] \\ & + \text{NI-RB}_{\text{BCR}_{\text{Uplift}}} \\ & + 0.33 * [\text{NI-UB}_{\text{BCR}_{2014}} + \text{NI-AUM}_{\text{BCR}_{2014}} + \text{NI-O}_{\text{BCR}_{2014}}] \end{aligned}$$

Note that all the terms in the  $\text{BCR}_{\text{Uplift}}$  are specified by applying a multiplier of 0.33 to the corresponding term from the  $\text{BCR}_{2014}$  formula. The only exception is the  $\text{NI-RB}_{\text{BCR}_{\text{Uplift}}}$  term, which is the maximum of two amounts (for each G-SII) less the  $\text{NI-RB}_{\text{BCR}_{2014}}$ .

8. Similarly, the  $BCR_{2015}$  formula can be written as:

$$\begin{aligned}
 BCR_{2015} &= BCR_{2014} + BCR_{Uplift} \\
 &= 1.33 * [TL_{BCR 2014} + TNL_{BCR 2014} + NT_{BCR 2014} + A_{BCR 2014}] + NI-RB_{BCR 2015} \\
 &\quad + 1.33 * [NI-UB_{BCR 2014} + NI-AUM_{BCR 2014} + NI-O_{BCR 2014}] \\
 &= [TL_{BCR 2015} + TNL_{BCR 2015} + NT_{BCR 2015} + A_{BCR 2015}] + NI-RB_{BCR 2015} \\
 &\quad + [NI-UB_{BCR 2015} + NI-AUM_{BCR 2015} + NI-O_{BCR 2015}]
 \end{aligned}$$

This later formula is used when describing the HLA formula. Note it makes clear that the HLA formula is based on the current  $BCR_{2015}$  formula and not on the  $BCR_{2014}$  formula.

These formulas need to be appropriately modified to use different scale factors for the purposes of transitional BCR reporting.

### HLA Formula

9. A generic HLA formula for a specified bucket can be written as the sum over the eight BCR required capital exposures multiplied by their HLA Factors. When a specific bucket is used, then the generic “HLA-Bucket” is replaced by “Low”, “Mid” or “High” as appropriate.

$$\begin{aligned}
 HLA &= HLA-Bucket_{TL} * TL_{BCR 2015} + HLA-Bucket_{TNL} * TNL_{BCR 2015} \\
 &\quad + HLA-Bucket_{NT} * NT_{BCR 2015} + HLA-Bucket_A * A_{BCR 2015} \\
 &\quad + HLA-Bucket_{NI-RB} * NI-RB_{BCR 2015} + HLA-Bucket_{NI-UB} * NI-UB_{BCR 2015} \\
 &\quad + HLA-Bucket_{NI-AUM} * NI-AUM_{BCR 2015} + HLA-Bucket_{NI-O} * NI-O_{BCR 2015}
 \end{aligned}$$

10. It is difficult to provide a single ‘HLA formula’ which takes into account the relationships between the factors when moving between buckets.

11. When a particular bucket is focused on then the formula above may be simplified. The HLA factors may then be presented as multiples of a chosen base. For example consider the Mid Bucket and choose the HLA factor for  $TL_{BCR}$  as a base. Denote this base as HLA Mid-Factor (it is 9.0%). Then the Mid Bucket formula can be written as:

$$\begin{aligned}
 HLA_{Mid} &= 0.090 * [ TL_{BCR 2015} + TNL_{BCR 2015} + A_{BCR 2015} \\
 &\quad + 2 * NT_{BCR 2015} + 2 * NI-AUM_{BCR 2015} + 2 * NI-O_{BCR 2015} \\
 &\quad + 1.4 * NI-RB_{BCR 2015} + 2.08 * NI-UB_{BCR 2015}]
 \end{aligned}$$

## Annex F: Sample calculation of BCR<sub>2015</sub> and HLA required capital amounts for hypothetical G-SIIs

- The following assumptions are made:
  - Each hypothetical G-SII has a BCR<sub>2014</sub> of 750 units (this permits comparability between the hypothetical G-SIIs).
  - Each hypothetical G-SII has a BCR<sub>Uplift</sub> of 250 units. That is, no impact of regulated banking (or other) caps is reflected in computing the BCR<sub>2015</sub> for the hypothetical G-SII. The BCR<sub>2015</sub> for each hypothetical G-SII is therefore 1,000 units.
  - The HLA required capital calculation is done for all buckets.
- The following hypothetical G-SIIs are considered. They have the following percentage splits of their 750 units of BCR<sub>2014</sub> or 1000 units of BCR<sub>2015</sub> required capital:

**Table F.1: Percentage split of hypothetical G-SII BCR<sub>2014</sub> and BCR<sub>Uplift</sub> required capital amounts**

G-SII	TL%	TNL%	A%	NT%	NI-RB%	NI-UB%	NI-AUM%	NI-O%
A	5	35	50	10	0	0	0	0
B	35	0	45	10	0	0	10	0
C	20	15	35	20	0	10	0	0
D	0	30	30	20	0	0	10	10
E	15	5	25	5	50	0	0	0
F	15	10	25	25	0	25	0	0

- The required capital outcomes, for both BCR<sub>2015</sub> and HLA, by bucket, are then determined by summing the products of the HLA factors from Table 4.1 with the BCR<sub>2015</sub> required capital exposures (the percentages in Table F.1 multiplied by the BCR<sub>2015</sub>):

**Table F.2: HLA required capital amounts for hypothetical G-SIIs**

G-SII	BCR <sub>2014</sub>	BCR <sub>Uplift</sub>	BCR <sub>2015</sub>	HLA Low Bucket		HLA Mid Bucket		HLA High Bucket	
	Units	Units	Units	Units	%BCR <sub>2015</sub>	Units	% BCR <sub>2015</sub>	Units	% BCR <sub>2015</sub>
A	750	250	1,000	66	6.6%	99	9.9%	149	14.9%
B	750	250	1,000	72	7.2%	108	10.8%	162	16.2%
C	750	250	1,000	79	7.9%	118	11.8%	174	17.4%
D	750	250	1,000	84	8.4%	126	12.6%	189	18.9%
E	750	250	1,000	75	7.5%	112	11.2%	168	16.8%
F	750	250	1,000	91	9.1%	137	13.7%	198	19.8%

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