INTERNATIONAL ASSOCIATION OF
INSURANCE SUPERVISORS

Public

Global Systemically Important Insurers: Updated Assessment Methodology

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About the IAIS

The International Association of Insurance Supervisors (IAIS) is a voluntary membership organization of insurance supervisors and regulators from more than 200 jurisdictions. The mission of the IAIS is to promote effective and globally consistent supervision of the insurance industry in order to develop and maintain fair, safe and stable insurance markets for the benefit and protection of policyholders and to contribute to global financial stability.

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.

The IAIS coordinates its work with other international financial policymakers and associations of supervisors or regulators, and assists in shaping financial systems globally. In particular, the IAIS is a member of the Financial Stability Board (FSB), member of the Standards Advisory Council of the International Accounting Standards Board (IASB), and partner in the Access to Insurance Initiative (A2ii). In recognition of its collective expertise, the IAIS also is routinely called upon by the G20 leaders and other international standard setting bodies for input on insurance issues as well as on issues related to the regulation and supervision of the global financial sector.

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Preface

In 2010, the FSB asked the IAIS to develop a process to identify those globally active insurance-dominated financial conglomerates whose distress or disorderly failure, because of their size, complexity and interconnectedness would cause significant disruption to the global financial system and economic activity. After developing and publishing in 2013 its first methodology (2013 Methodology) to assess potential globally systemically important insurers, the IAIS employed the 2013 Methodology for G-SII identifications in 2013, 2014, and 2015.

As part of its scheduled three year review, in November 2015, the IAIS released a public consultation document that outlined proposed revisions to the 2013 Methodology. The revised methodology described herein (2016 Methodology) follows consideration of stakeholder comments received in reply to the public consultation document. The 2016 Methodology will be employed by the IAIS beginning in 2016.

The IAIS is committed to transparent engagement with stakeholders, as evidenced by more than 140 hours of stakeholder engagement in 2015 (up from approximately 15 in 2014). To this end, the 2016 Methodology increases transparency of process and results to participating insurers and to the public.

The IAIS has also put in place appropriate frameworks to protect confidential data provided by insurers as part of the assessment process.

Glossary of abbreviations

BCBS	Basel Committee on Banking Supervision (also Basel Committee)
BIS	Bank for International Settlements
CDS	Credit Default Swap
FSB	Financial Stability Board
G-SIBs	Global Systemically Important Banks
G-SIFIs	Global Systemically Important Financial Institutions
G-SIIs	Global Systemically Important Insurers
G20	Group of Twenty Countries
HLA	Higher Loss Absorbency
IAIGs	Internationally Active Insurance Groups
IAIS	International Association of Insurance Supervisors
ICS	Insurance Capital Standard
ICPs	Insurance Core Principles
NTNI	Non-traditional Non-insurance Activities
SIFIs	Systemically Important Financial Institutions

Contents

I. Introduction

1. The International Association of Insurance Supervisors (IAIS) participates in a global initiative, along with other standard setters, central banks and financial sector supervisors, and under the purview of the Financial Stability Board (FSB) and G20, to identify global systemically important financial institutions (G-SIFIs).[1] The IAIS' analysis involves the identification of insurers[2] whose distress or disorderly failure would potentially cause significant disruption to the global financial system and economic activity, i.e. global systemically important insurers (G-SIIs). The IAIS does not measure an insurer's vulnerability when assessing the potential impact upon distress or failure of an insurer. Additionally, the analysis in the G-SII identification process does not consider the quality of the resolution or policy framework within a jurisdiction. To this end, in 2013 the IAIS developed an initial assessment methodology (2013 Methodology).

2. As stated in the 2013 Methodology, the assessment methodology is to be reviewed every three years in order to capture improvements noted by IAIS Members, developments in the insurance sector, changes in insurers' activities or products, growth in the global insurance markets, and improvements in methods and approaches for measuring systemic importance in the insurance sector and the broader financial sector. The next revisions to the G-SII assessment methodology will begin in 2018 and be effective in 2019.

3. On 6 November 2014, the FSB reported that, "by November 2015, the IAIS will further develop the G-SII assessment methodology as needed to ensure, among other things, that it appropriately addresses all types of insurance and reinsurance, and other financial activities of global insurers."[3] On November 25, the IAIS released two papers: (1) Global Systemically Important Insurers: Proposed Updated Assessment Methodology and (2) Non-traditional Non-insurance Activities and Products for a 60 day consultation period.[4]

4. As an industry, insurers are heterogeneous in terms of size, structure, lines of business, global activity, risk exposures, and data reporting. Recognising this heterogeneity across the global financial system, the 2016 Methodology includes a structured use of quantitative and qualitative components, and both are combined into an overall and comprehensive assessment of any insurer prior to that insurer being identified as a G-SII. The results of the 2016 Methodology are driven by factual analyses, a comprehensive assessment of the individual insurer, and an exchange of information with the Prospective G-SII.

[1] G-SIFIs are defined by the FSB as "institutions of such size, market importance, and global interconnectedness that their distress or failure would cause significant dislocation in the global financial system and adverse economic consequences across a range of countries." Global systemically important insurers (G-SIIs) are one class of G-SIFIs. See the FSB SIFI Framework, 2010 (http://www.financialstabilityboard.org/publications/r_101111a.htm).
[2] Unless otherwise noted, for the purpose of this document the term "insurers" may include both primary insurers and reinsurers as well as other firms with insurance operations.
[3] Financial Stability Board, 2014 updated of list of global systemically important insurers (G-SIIs), November 6, 2014, (http://www.financialstabilityboard.org/wp-content/uploads/r_141106a.pdf).
[4] See Non-traditional Non-insurance Activities and Products, 25 November 2015.

5. The 2016 Methodology outlines a five-phase approach to the G-SII assessment process that includes fact-based qualitative and quantitative elements. The IAIS has modified certain indicators used in the 2013 Methodology to address issues related to indicator responsiveness, connection with systemic risk, and data quality, including reliability (across both insurers and jurisdictions).

6. The 2016 Methodology uses absolute reference values for derivatives trading (CDS or similar derivatives instrument protection sold) financial guarantees, and reinsurance indicators. Second, the IAIS moved the consideration of data relating to the large exposures and intra-group commitments from the quantitative assessment in Phase II to the Phase III analysis. Third, the IAIS has not used derivatives trading (excluding hedging and replication) in economic terms as an indicator in the 2013 Methodology because of data reliability concerns. Recognising its high degree of potential systemic relevance, the IAIS continues to explore how to assess an insurer's speculative derivatives trading.

7. The 2016 Methodology may result in the identification of G-SIIs, which are subject to policy measures for G-SIIs (e.g. enhanced supervision, effective resolution, and higher loss absorbency (HLA), as adopted by relevant authorities.[5] Insurers that are Internationally Active Insurance Groups (IAIGs) will be subject to the IAIS Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame),[6] and insurers that are neither G-SIIs nor IAIGs are subject to supervision consistent with the IAIS Insurance Core Principles (ICPs).

8. The ICPs apply to insurance supervision in all jurisdictions regardless of the level of development or sophistication of the insurance markets or services being supervised. Supervisory measures should be appropriate to attain the supervisory objectives of the jurisdiction and should not exceed that which is necessary to achieve those objectives. Supervisors need to tailor certain supervisory requirements and actions in accordance with the nature, scale, complexity and risk profile of the insurer. Supervisors have the flexibility to tailor supervisory requirements and actions to be commensurate with the risks posed by insurers to consumers, the insurance sector or the financial system.

9. Insurers and IAIGs in the Insurer Pool (the insurers participating in the annual data collection exercise are collectively referred to herein as the Insurer Pool) that are not G-SIIs will be subject to the ICPs and ComFrame, and G-SIIs will be subject to ICPs, ComFrame, and G-SII Policy Measures. Separately, and through the IAIS, supervisors are expected to assess the proportional application of elements of the ICPs, ComFrame, and the G-SII Policy Measures on enhanced supervision and effective resolution to IAIGs and insurers in the Insurer Pool (including any insurers in the Insurer Pool identified as G-

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[5] *See* Globally Systemically Important Insurers: Policy Measures (IAIS July 2013).

[6] Insurers that satisfy the criteria to be an IAIG but are not identified as G-SIIs, will not be subject to the G-SII enhanced supervisory measures but will be subject to ComFrame, as adopted by relevant authorities. The criteria to be an IAIG are:

a. International activity: premiums written in not less than three jurisdictions and percentage of gross written premiums collected outside the home jurisdiction is not less than 10%; and,

b. Based on a rolling three-year average, total assets of at least $50 billion or gross written premiums of not less than $10 billion.

SIIs) in order to manage the potential transition of insurers from G-SII to non-G-SII status and vice versa. Without prejudging the outcome of this assessment, this will not be a reconsideration of the substance of the policy measures, and is not intended to create a new subgroup of non-G-SII insurers within the existing IAIS framework. If necessary, the IAIS will publicly consult on differences in the intensity and application of supervisory measures that are dependent upon the insurer's nature, size, scale, complexity, and interconnectedness.

II. The Structure of the 2016 Methodology

10. Built on the 2013 Methodology, the 2016 Methodology integrates a structured use of quantitative and qualitative considerations. The structure of the 2016 Methodology is discussed in Section IV.

11. The 2016 Methodology adopts a five-phase approach. Phases I and II (see discussion below) incorporate the quantitative component of the 2016 Methodology. Phases III and IV (see discussion below) comprise qualitative and quantitative elements of the 2016 Methodology, including engagement with Prospective G-SIIs (as defined in paragraph 36). Phase V combines Phases I through IV to produce an overall assessment that concludes with the IAIS recommendation to the FSB.

III. Indicator Revisions

Rationale for Use of Absolute Reference Values

12. The 2016 Methodology uses absolute reference values for three indicators to better assess systemic importance of the Insurer Pool within the broader insurance sector or financial system. Using absolute reference values means that these indicators are not calculated solely as the relative importance of an insurer within the Insurer Pool. For example, under the 2013 Methodology, each insurer's score for a particular indicator was calculated by dividing the individual insurer amount by the aggregate amount summed across all insurers in the sample.[7] Absolute reference values are derived from financial market totals and create a scaling factor which is multiplied by the weight of each of the three indicators to better measure systemic importance.

13. The use of absolute reference values has been motivated by several considerations. Absolute reference values recognise changes in the systemic risk of the sample insurers over time, a sensitivity that is lost when scores are entirely relative and is important for these three indicators. For example, the underlying markets for both the derivatives trading (CDS or similar derivatives instrument protection sold) and financial guarantee indicators have seen large decreases in volume since the financial crisis. The 2013 Methodology did not adequately capture this possibility. Without adjustment these indicators could result in a distorted score for that indicator for an insurer with a constant or declining amount of activity.

[7] *See* Global Systemically Important Insurers: Initial Assessment Methodology, 18 July 2013.

14. The use of absolute reference values also make the 2016 Methodology more responsive to changes in the insurance industry's systemic profile. For example, if insurers resumed writing credit default swaps at levels undertaken during the global financial crisis of 2007-08, scores would now increase accordingly. The use of absolute reference values also helps adjust for sample bias. Although the IAIS annually requests data from approximately fifty insurers as part of the 2016 Methodology, insurers in the data collection exercise may not be representative of certain aspects of the broader global financial system.

15. The absolute reference values for these three indicators are based on the following:

    a. Financial Guarantees: This absolute reference value is the ratio of the current par value of structured finance bonds insured relative to the average annual total from 2005 – 2007.
    b. Derivatives trading (CDS or similar derivatives instrument protection sold): This absolute reference value is the ratio of the total current global CDS market to the total global CDS market in 2007. Further analysis will include a Phase III consideration of developments of exposure in the insurance sector and a cross-sectoral evaluation of the growth of the credit default swaps sold in the insurance sector as compared to the banking sector.
    c. Reinsurance: This absolute reference value equals the net premiums for the third-party reinsurance premiums of those reinsurers who complete the reinsurance supplemental assessment (see paragraph 67) divided by global third-party reinsurance sector net premium.

16. At the next scheduled three-year review, the Methodology may move toward using more absolute reference values, where appropriate, to assure that the indicators adequately capture changes in the industry's systemic footprint and the potential threat to global financial stability posed by insurers as compared to other financial firms.

Financial Guarantees Indicator

17. The financial guarantees indicator measures the par value outstanding of structured finance bonds insured.[8] The IAIS has determined that these products are or were predominately offered by U.S.-based insurers and were systemically important at the time of the financial crisis. The IAIS has also determined that the guarantee on structured finance transactions, predominately offered by some U.S.-based insurers, is currently in run-off in the United States. For this reason, and in order to best monitor annual developments in the structured finance guarantee market, the IAIS will now use an absolute reference value that accounts for market developments. This absolute reference value is the ratio of the current par value of structured finance bonds insured relative to the average annual total from 2005 – 2007.

18. The IAIS will continue to monitor developments in global financial guarantee activity (including public finance guarantee) so that annual growth can be tracked for global systemic importance.

[8] *See* Global Systemically Important Insurers: Initial Assessment Methodology, 18 July 2013.

Derivatives Trading (CDS or similar derivatives instrument protection sold) Indicator

19. The derivatives trading (CDS or similar derivatives instrument protection sold) indicator is intended to capture the scale of CDS protection sold by an insurer which thereby connects that insurer with other parts of the financial system.[9] The IAIS uses an absolute reference value for this indicator that accounts for market developments and the currently reduced size of the CDS market, thereby reducing the distorted outcomes that resulted from a relative ranking. The level of CDS activity throughout the financial system in 2007 was observed to have systemic consequences, and this absolute reference value is the ratio of the total current global CDS market to the total global CDS market in 2007.

Reinsurance Indicator

20. The reinsurance indicator in the interconnectedness category uses reinsurance technical provisions as a proxy for counterparty exposure in the insurance sector from reinsurance transactions.[10] The IAIS uses an absolute reference value for this indicator because the approximately fifty insurers in the IAIS annual data collection may not be representative of the reinsurance market. In addition, a reinsurer's actual market share in the global reinsurance market may change over time. Further, given that both the IAIS and supervisory authorities encourage diversification of reinsurance capital, this indicator is premised upon relevance within the total insurance and reinsurance sector rather than within the Insurer Pool. In particular, this absolute reference value equals the net premiums for third-party reinsurance activity of those reinsurers who complete the reinsurance supplemental assessment divided by global third-party reinsurance sector net premium. This absolute reference value better measures the global systemic importance of reinsurance activities engaged in by the reinsurers in the Insurer Pool.

Former Phase II Indicators moved to Phase III

21. The IAIS moved consideration of an insurer's large exposures, intra-group commitments, and derivatives trading (excluding hedging and replication) from Phase II to the Phase III analysis.

Revisions and Improvements to other Indicators in the 2016 Methodology

Derivatives Indicator (Interconnectedness Category)

22. The derivatives indicator measures the degree of interconnectedness with the financial system through derivatives transactions. The data input used for this indicator in the 2013 Methodology was based on gross notional value. This measurement was chosen because gross notional value provides a measure of the potential disruption from the unwinding of a derivatives book in the event of an insurer's distress or failure and because it is reported consistently across jurisdictions. In addition to avoid double counting, the IAIS has determined to remove from the derivatives indicator in the interconnectedness category the bifurcated embedded derivatives associated with

[9] Id.
[10] Id.

products that are captured in the minimum guarantee indicator. For 2016, the Phase II indicator remains based on the gross notional value. The IAIS is now collecting data on the net fair value and potential future exposure from derivatives transactions and will consider this data in Phase III in 2016. This data provides additional insight into counterparty exposure from derivative transactions, including netting arrangements and the relative risk of different types of derivatives. Beginning in 2017, the IAIS will evaluate whether, and, if so, how to incorporate into the Phase II derivatives indicator the net fair value and potential future exposure.

Liability Liquidity Indicator

23. In a standardized framework, economic penalties and time restraints are important contractual aspects that impact the propensity of policyholders to surrender in stressed conditions. The lower the penalty and the shorter the time restraint, the more likely it is that policyholders may surrender, thus putting the insurer under a considerable liquidity strain under distress. To reflect the difference in severity, a gradated approach is applied. The combination of time restraints and economic penalties would determine the weight that liabilities receive under the liability liquidity indicator, according to the following table.

Table 1.

		Delay in access		
		None (< 1 week)	Low (< 3 months)	High (> 3 months)
Economic Penalties	None	100%	50%	2.5%
	Low (< 20%)	50%	25%	0%
	High (> 20%)	2.5%	0%	0%

Where:

- Delays in access are based on the average time between the request by a policyholder and the settlement under the normal course of business.
- Economic penalties include all contractual monetary penalties that insurers can impose on policyholders that surrender early.

Minimum Guarantee on Variable Products Indicator

24. The 2013 Methodology included derivatives used to hedge minimum guarantees on variable products in its assessment of the derivatives indicator but did not recognize these derivatives in the assessment of the minimum guarantees on variable products indicator. This implies a double-counting of the use of derivatives for the purpose of hedging, such that insurers which hedge their risks are penalized compared with insurers which do not hedge their risks. In addition, derivatives embedded in products with minimum guarantees were included both in the minimum guarantees on variable products indicator and in the derivatives indicator. Under the 2016 framework for determining the products that will be included in the Phase II indicator, the IAIS has determined to address this double-counting in the assessment of

risks of derivatives and minimum guarantees on variable products. The 2016 Methodology removes the double counting of hedged exposures by deducting the portion of the derivatives indicator score attributable to hedges of minimum guarantees from the minimum guarantees indicator.[11] While derivatives do not eliminate the systemic risk created by these exposures for minimum guarantees products, it is not necessary to double count the exposure.

Revised Phase II Indicators and Weights

25. In the 2016 Methodology, the IAIS has reclassified indicators within Phase II according to the systemic risk transmission channel with which they are associated. Indicators that were once included within the Non-traditional Non-Insurance (NTNI) category are now distributed between the Interconnectedness category and a new Asset Liquidation category. Additionally, some indicators previously included within the Interconnectedness category have been moved to the Asset Liquidation category and two sub-categories (counterparty exposure and macroeconomic exposure) have been established within the Interconnectedness category.

26. The IAIS moved consideration of an insurer's large exposures, intra-group commitments, and derivatives trading (excluding hedging and replication) from the indicator-based component in Phase II and to the Phase III analysis. With the consideration of three data points (derivative trading (excluding hedging and replication), intra-group commitments and large exposures) moved to Phase III, the weights for the remaining indicators previously in the Interconnectedness and NTNI categories are increased proportionally. See discussion of Phase III below.

27. In addition, for the indicators for which absolute reference values have been introduced (reinsurance, financial guarantee and derivatives), the absolute reference values adjust the weights of the indicators. The adjusted weights do not, in general, add to 1.00. For these indicators, this approach allows the IAIS to monitor growth or decline in activities measured by the indicators in a manner that a relative score will not.

IV. Phases of Assessment Process

28. The 2016 Methodology includes a five-phase approach.

Phase I: Annual Data Collection Phase

29. The IAIS collects data from insurers that meet at least one of the following criteria, subject to the provisions in paragraph 31:
    - total assets of more than US$ 60 billion and a ratio of premiums from jurisdictions outside the home jurisdiction to total premiums of 5% or more; or
    - total assets of more than US$ 200 billion and a ratio of premiums from jurisdictions outside the home jurisdiction to total premiums greater than 0%.

[11] Amended Minimum Guarantees on Variable Products indicator: $\frac{MG_{firm}}{MG_{sample}} - \frac{D_{MG,firm}}{D_{sample}}$ (Where 'D' and 'MG' denote the exposures used in the indicators for the firm, the sample or the portion covering hedged minimum guarantees).

30. The insurers generally included are the 50 largest insurers, although the IAIS may choose to include more or less than 50 insurers.

31. In exceptional circumstances that are analytically supported, the IAIS and relevant authorities may annually determine to collect data from any insurer that may allow a more representative Insurer Pool for systemic risk analysis. Subject to analytically defensible grounds, the IAIS and relevant authorities may choose to not collect data from an insurer that otherwise meets the criteria.

32. The IAIS intends annually to review and, if necessary, revise the data call instructions and template to collect better data for Phases II and III. Typically by early April, the IAIS issues the data call instructions and template through relevant authorities to insurers in the Insurer Pool.

Phase II A: Quality Control and Scoring Phase

33. During Phase II, the insurers in the Insurer Pool typically submit data to the relevant authorities by mid-May each year. The relevant authorities then conduct a general accuracy and reasonableness assessment of data received from insurers in their respective jurisdictions. By mid-June the IAIS validates the completeness and accuracy of data received from insurers, to the extent reasonably necessary and possible. Also, if necessary, the IAIS will communicate with relevant authorities to validate data.

34. Following the receipt and validation of data, for each insurer in the Insurer Pool, the IAIS will use the data to calculate the scores for each of the 17 indicators, which are multiplied by the respective weights and, where applicable, absolute reference values and then summed to an overall score for each insurer. The quantitative assessment in Phase II provides an initial quantitative ranking of the relative systemic importance of potential G-SIIs within the 2016 Methodology.

Table 2. Phase II Indicators and Weights

Category	Subcategory	Indicator	Weight
Size		Total Assets	2.5%
		Total Revenues	2.5%
Global activity		Revenues derived outside of home country	2.5%
		Number of Countries	2.5%
Interconnectedness	Counterparty exposure	Intra-financial assets	6.7%
		Intra-financial liabilities	6.7%
		Reinsurance	6.7%*
		Derivatives	6.7%
	Macroeconomic exposure	Derivatives Trading (CDS or similar derivatives instrument protection sold)	7.5%*
		Financial guarantees	7.5%*
		Minimum guarantees on variable products	7.5%
Asset liquidation		Non-policy holder liabilities and noninsurance revenues	7.5%
		Short term funding	7.5%
		Level 3 assets	6.7%
		Turnover	6.7%
		Liability liquidity	7.5%
Substitutability		Premiums for specific business lines	5%

*Denotes the application of an absolute reference value

Phase II. B: Determination of Quantitative Threshold

35. Following Phase II.A, the IAIS establishes a quantitative threshold that preliminarily divides the Insurer Pool into two groups. The two groups are:

- Group 1: This group contains insurers scoring above the quantitative threshold. This group will be analysed further in Phase III.

- Group 2: This group contains insurers scoring below the quantitative threshold. This group will not be subject to further evaluation in Phases III unless added by discretion of the IAIS and the relevant authorities on analytically defensible grounds.

36. Insurers in Group 1 and those added to Phase III by discretion of the IAIS and the relevant authorities from Group 2 will be subject to further analysis in Phases III to V (Prospective G-SIIs).

37. Following the application of data to the indicators in Phase II, the IAIS will establish the quantitative threshold by consistently applying a process and method year-over-year. The IAIS will monitor the annual consistency of the quantitative threshold by identifying

the average score of the insurers included in the data collection exercise and calculating a certain level of standard deviation from the average score.

38. In Phase II, the IAIS will establish the quantitative threshold in a manner that is consistent with the following statistical and analytical approaches. These approaches are used to verify the reasonableness of the output of each individual approach. These approaches are:

- Visual cliff, i.e. evaluation of whether the Phase II scores indicate a meaningful difference between one or more potential G-SIIs and the other ranked insurers.
- Cluster analysis, i.e. evaluation of whether the scores demonstrate that one or more potential G-SIIs generate scores within a range.
- Cross-sectoral analysis, i.e. where possible, the IAIS will evaluate the relative importance of potential G-SIIs in the broader financial system and in comparison to potential systemically important firms in other sectors. This analysis may include consideration of systemic risk metrics upon which the IAIS agrees are generally informative.
- Trend comparisons, including of the aggregate totals for each Phase II indicator, to assess whether the systemic importance of the potential G-SIIs has increased or decreased over time.

39. An insurer's score or ranking following Phase II does not of itself determine or result in G-SII identification. Rather, the five phases of the 2016 Methodology produce a recommendation from the IAIS to the FSB on a recommended G-SII list.

Phase III: Discovery Phase

40. For Prospective G-SIIs, Phases III, IV, and V enable the IAIS to consider additional information and conduct additional analyses as described below. Through Phase III, adjustments to the Phase II score will be made only if analysis and further data reveal errors in the data submitted by insurers or in the IAIS calculation of the Phase II score.

41. The 2016 Methodology is based on quantitative outputs that are complemented by an assessment phase (Phase III) in which additional information, including qualitative and quantitative considerations, will be taken into account. Phase III will assess the heterogeneity of structures, activities, products, exposures and global activities within the insurance industry, and differences in data quality reported across insurers and across jurisdictions.

42. During Phase III, the IAIS and the relevant authorities will gather and analyse additional quantitative or qualitative information that is not captured in Phase II indicators. For these purposes the IAIS may request additional information from the insurer. The level and extent of analysis conducted in Phase III for Prospective G-SIIs will be determined by the relevant authorities and the IAIS.

43. Phase III allows for identification and analysis of incomplete or inaccurate outcomes from Phase II, if necessary. The IAIS removed intra-group commitments, large exposures, and derivatives trading (excluding hedging and replication) in economic terms from the quantitative assessment in Phase II and considers these data elements in Phase III.

44. The IAIS strives to make the Phase II indicators as accurate a representation of the systemic risk from individual insurers as possible and anticipates that further improvements to the Phase II indicators will increase its accuracy and importance over time. As part of this and beginning in 2017, the IAIS will evaluate whether, and, if so, how to incorporate data points from Phase III into the 2016 Methodology's Phase II indicators.

Data on Large Exposures

45. The data on large exposures that were previously collected through the 2013 Methodology also may reflect incoming risks that affect the probability that an insurer will be in financial distress, rather than the systemic impact upon failure or material distress of that insurer. However, an insurer's large exposures could provide relevant information on an insurer's interconnectedness with external counterparties. If an insurer's assets are highly concentrated in one or a small number of counterparties, the insurer may be sensitive to the distress of those particular counterparties and could be more likely to contribute to system-wide contagion. Moreover, in the event of the insurer's own distress, it may potentially damage the functioning of the market(s) in the liabilities of those counterparties and may thereby further distribute the insurer's stress to the financial system. Therefore, this data will be considered during Phase III of the Methodology.

Data on Intra-group Commitments

46. The intra-group commitments of an insurer may affect intra-group contagion and whether an insurer may be in financial distress. Therefore, depending upon the nature of the group, the intra-group commitments of an insurer may have systemic risk implications The IAIS moved the intra-group commitments indicator from Phase II of the Methodology because data inconsistencies across firms and across borders resulted in potentially inaccurate or incomplete calculations of the indicator across the sample insurers. Therefore, information on intra-group commitments will be considered during Phase III of the 2016 Methodology.

Data on derivatives trading (excluding hedging and replication) in economic terms

47. The 2013 Methodology included both a derivatives trading (CDS or similar derivatives instrument protection sold) indicator and a derivatives trading (excluding hedging and replication) in economic terms indicator in the category formerly known as NTNI. The derivatives trading (excluding hedging and replication) in economic terms indicator was intended to indicate the degree of speculative derivatives trading by insurers, which has a high degree of potential systemic relevance. However, the IAIS has not used this indicator in prior designation exercises because of concerns regarding data responsiveness and reliability across insurers and across jurisdictions. Therefore, the IAIS removed this indicator from Phase II of the Methodology. However, recognising its high degree of potential systemic relevance, the IAIS continues to explore how to assess an insurer's speculative derivatives trading.

Additional Phase III Analysis

48. The following analysis and additional information considered in Phase III allows for a more nuanced assessment of each insurer subject to this phase, including of its Phase II indicators, in order to take into account any idiosyncratic elements of the insurer's business model:

- Improved understanding of the data that constitute the Phase II indicators.
- Facts or circumstances relevant to global financial stability that cannot be easily discerned from the Phase I data collection or Phase II indicators. This also includes any material changes in the insurer's circumstances (such as major acquisitions or divestitures) since the compilation of the data on which Phases I and II are based, and which would have a significant impact on the insurer's potential systemic relevance.
- Increased understanding of the nature and extent of risks associated with non-insurance activities.
- Identification of additional factors that may increase or decrease the extent to which the insurer's distress or disorderly failure would cause significant disruption to the global financial system and economic activity.
- Characteristics of the insurer's business model, composition and proportion of the group's financial and non-financial activities to assess, among other things, the interconnections between the parts of the insurance group (*e.g.* the interconnections between the insurance group's various financial activities and non-financial activities).
- Growth or decline in the Phase II indicators for which absolute reference values have been established (such as the structured finance guarantee market used in the financial guarantees indicator).
- The assessment also should examine a primary insurer's or a reinsurer's exposures to potential large catastrophes.

49. Phase III will include cross-sectoral assessments, including analysis of (1) developments in credit default swaps (CDS) exposure in the insurance sector, including the growth or decline in the total amount of CDS sold outside of the insurance sector; (2) comparison of the aggregate indicators on which relative rankings are based to the broader financial system; (3) risks to financial stability identified in the financial stability work in other financial sectors that may be interconnected with the insurance sector; and (4) any other measure of global systemic impact that the IAIS determines to be appropriate.

Data on an insurer's interconnections with other financial counterparties

50. Phase III allows the IAIS to conduct a further analysis of the nature and extent of the insurer's interconnections with other financial counterparties. To further this objective, the IAIS is collecting information on an insurer's deposit-type institutional business (*e.g.* contracts marketed towards financial counterparties that do not incorporate significant insurance risk) because these activities may increase interconnections between the insurer and other financial institutions. This data and analysis allows the IAIS to further evaluate the impact of an insurer's failure or material distress on the global financial system by further analysing the extent to which large financial institutions have significant exposures to the insurer.

Data on trading securities

51. The IAIS is collecting information on securities trading activities in order to enhance the quality of data considered in the turnover indicator. This data and analysis will help produce a more accurate interpretation of the turnover indicator by measuring the debt and equity securities that are bought and held by the insurer principally for the purpose of sales in the near term.

Data on debt and debt-like liabilities with provisions that could accelerate payment

52. The IAIS is collecting information on the amount of an insurer's debt and debt-like liabilities that could be accelerated. This data and analysis will provide information on the extent to which an insurer has liabilities that could be accelerated if the insurer were in distress (for example, long term borrowing could have triggers which give it short-term features).

Data on derivatives (net fair value and potential future exposure)

53. In addition to gross notional value, the IAIS is collecting data on an insurer's net fair value and potential future exposure from derivatives transactions and will consider this data in Phase III in 2016. This data and analysis provides additional insight into counterparty exposure from derivative transactions and how an insurer may be affected by changes in market circumstances, including by evaluating potential expected future exposures to counterparties, netting arrangements, and the relative risk of different types of derivatives.

Data on insurer's entire asset portfolio and its entire liability portfolio

54. The IAIS is collecting information in Phase I on the average duration of an insurer's entire asset portfolio and its entire liability portfolio. This data will provide the IAIS with information regarding the duration gap between an insurer's assets and liabilities. One example of a mitigating factor is a small or no duration gap (perfect matching of liabilities in practice). One example of an exacerbating factor is a substantial duration gap (assessment needs to be made that put both asset and liability duration into perspective). For insurers with material business with features such as future discretionary benefits, particular ratios, which use liability cash flows that better reflect the duration of the liabilities, might be calculated by supervisors after additional requests for information from the insurer.

Phase III Considerations for Minimum Guarantee on Variable Products Indicator and Liability Liquidity Indicator

55. The following factors will be considered in Phase III. These additional factors provide a more accurate measure of the indicators of minimum guarantees on variable products and liability liquidity. Each aims to provide additional insights for the assessment of systemic relevance. Further rationale for each of these additional factors is provided in the IAIS' paper Systemic Risk from Insurance Contract Features.

Minimum Guarantees on Variable Products Indicator

Degree to which liabilities of firms are cash-flow matched in practice

56. The minimum guarantees indicator is based on a contractual assessment of the ability of firms to match the cash flows arising from guarantees. Firms may, in practice, be restricted (or choose to restrict) the degree to which cash flows can be matched. This will be taken into account in Phase III. However, any data provided by firms must be interpreted with caution as the calculation of the duration of liabilities is based on assumptions.

Derivatives to hedge guaranteed returns for variable products

57. The minimum guarantees indicator is net of risk mitigation. This is appropriate because hedging could reduce micro-prudential risk, but may not reduce macro-prudential risk, because it transfers the exposure to a third party. Certain derivatives could pose higher risks than others. One example of a mitigating factor is the use of centrally cleared derivatives. One example of an exacerbating factor is the use of over-the-counter derivatives.

Liability Liquidity Indicator

Purpose of the policy

58. The purpose of a policy may play a relevant role in the likelihood of policyholder runs occurring. Specifically, policies that are principally providing protection are less likely to result in runs as policyholders would typically value the protection feature. One example of a mitigating factor is policies principally providing protection. One example of an exacerbating factor is policies principally providing savings.

Surrender value relative to market value of underlying assets

59. Run dynamics tend to be aggravated where the surrender value exceeds the market value of underlying assets; this provides incentives for policyholders to surrender early to ensure there is money left (the typical “bank run”). One example of a mitigating factor is where the surrender value cannot contractually exceed the market value of underlying assets. One example of an exacerbating factor is where the surrender value can contractually exceed the market value of the underlying assets.

Supervisory Interventions: stays and lowering surrender value

60. Some supervisors have tools at their disposal, such as the authority to impose stays or lower surrender values, that can prevent runs or mitigate the impact of runs on the financial system. One example of a mitigating factor is supervisory interventions (such as stays and the lowering of surrender values) are legally feasible and can reasonably be assumed to be used by supervisors in case of crisis. One example of an exacerbating factor is that there are concerns that the use of supervisory stays could exacerbate systemic risk through the disruption in market confidence caused by delayed payments.

Maximum Contractual Stays

61. Some contracts allow for very long stays (under stressed conditions). One example of a mitigating factor is that long contractual stays give insurers the flexibility to manage the outflows somewhat in case of higher liquidity needs. One example of an exacerbating factor is that those (long) contractual stays could potentially not be exercised in stressed conditions, particularly if there is a discrepancy between normal pay-out times and contractual maxima.

Replacement of Cover

62. Whether or not the replacement of cover is possible will affect the likelihood of policyholder runs occurring. Specifically, disincentives for policyholders to surrender policies are larger in case cover is not easily replaced by another insurer or policy due to unavailability of the same/similar cover and/or significant increase in premiums or other costs for the same/similar cover. One example of an exacerbating factor is if cover is easily replaced. One example of a mitigating factor is if cover is not easily replaced.

Tax Penalties

63. Although economic penalties encompass all monetary penalties including tax penalties, Phase II only takes into account contractual penalties imposed by insurers. In practice, there may be other economic penalties to surrendering policies, including loss of tax benefits, for instance through the tax treatment of policies and surrenders. One example of a mitigating factor is the tax penalty upon surrendering, or the loss of a tax benefit (*e.g.* exemptions from inheritance tax) after surrendering a policy.

The existence of policyholder protection schemes and mechanisms

64. Policyholder protection schemes and mechanisms can be effective in reducing incentives for a policyholder to surrender their policies, especially if policyholder runs were driven by concerns over the solvency of firms and fear of not receiving their account values. One example of a mitigating factor is the existence of a credible and effective policyholder protection scheme or mechanism. One example of an exacerbating factor is the lack of a credible policyholder protection scheme or mechanism.

Liquidity of assets

65. The IAIS is collecting information relating to the liquidity of an insurer's invested assets. This data and analysis allows the IAIS to further evaluate an insurer's assets and support a more accurate analysis of how the insurer's failure could potentially transmit systemic risk to the global financial system through the asset liquidation channel.

Policyholder surrenders at a large enough scale may lead to the forced sale of assets to ensure policyholders can be paid. The forced sale of illiquid assets is more disruptive than the sale of liquid assets. One example of a mitigating factor is assets that are very liquid relative to liabilities. One example of an exacerbating factor is assets that are very illiquid assets relative to liabilities.

Derivatives collateral requirements

66. A liquidity shortfall at an insurer can arise not only from a large amount of policyholder surrenders, but also from collateral posting requirements relating to derivative liabilities. This was observed during the financial crisis. One example of a mitigating factor is if an insurer has limited derivatives collateral needs under a variety of scenarios such as a downgrade or spike in interest rates. One example of an exacerbating factor is if an insurer has large derivatives collateral needs under a variety of scenarios such as a downgrade or spike in interest rates.

Reinsurance Supplemental Assessment

67. The reinsurance supplemental assessment complements the other components of the 2016 Methodology and allows the IAIS to assess risks associated with an insurer's third-party reinsurance activities. The reinsurance supplemental assessment forms part of Phase III and allows for a data and fact-driven analysis of insurers with significant third-party reinsurance activities. The reinsurance supplemental assessment will not lead to a double counting of the activities included in the Phase II reinsurance indicator; rather it will allow the IAIS to conduct a more in-depth analysis of third-party reinsurance activities. The reinsurance supplemental assessment is only applied to insurers with significant third-party reinsurance activities that are subject to the Phase III analysis.

68. In particular, the IAIS evaluates the reinsurance activities of an insurer included in Phase III if the insurer has reinsurance activities that generate EUR 10 billion or more in annual gross written premium.

69. The reinsurance supplemental assessment evaluates a reinsurer's market, regional (*i.e.* the location of the origin of the risk), and institutional concentration risk, including to current G-SIIs. The IAIS will collect and analyse data on regional and line of business concentrations in the reinsurance market.

70. The reinsurance supplemental assessment provides further insight into whether reinsurance activities could lead to systemic loss transmission through the exposure, asset liquidation, and critical function or service channels.

71. To evaluate whether a default of an insurer with significant reinsurance operations could trigger the default of ceding insurers, the IAIS will collect and analyse data on ceding insurers' reinsurance recoverables, deposit assets, and other exposures to a given reinsurer and compare these balances to the ceding companies' book values. At a minimum, the IAIS will perform this analysis for all G-SIIs to assess how exposed each would be to the failure of insurers with significant third-party reinsurance operations, and to evaluate whether the failure of an insurer with significant third-party reinsurance activities would potentially lead to a systemic impact upon the global financial system. The IAIS will also collect and analyse data on reinsurance collateral.

72. Under the asset liquidation channel, the IAIS will collect and analyse data regarding the potential that an insurer's reinsurance operations, also taking into account that insurer's access to other liquidity sources beforehand, could require that insurer to engage in asset sales of a sufficient size that could have systemic effects. Such asset sales could result from the demand for settlement of reinsurance treaties (e.g., a forced commutation) or from additional collateral posting requirements after some event such as a ratings downgrade. The IAIS will collect and analyse data regarding the potential liquidity needs of the reinsurance operations alongside the liquidity needs from other sources such as from the use of short-term funding. As part of this analysis, the IAIS will take into account the liquidity of each insurer's asset portfolio.

Conclusion of Phase III

73. At the conclusion of Phase III, the IAIS will generate a list of Prospective G-SIIs, each of which shall be invited to participate in Phase IV of the 2016 Methodology. Phase III will complement Phase II and will be consistently applied and any conclusions from Phase III will be supported by well-documented and verifiable quantitative and qualitative information. Following Phase III, the IAIS will not advance an insurer to Phase IV if the IAIS determines that the insurer's failure or material distress would not cause significant disruption to the global financial system and economic activity.

<u>Phase IV: Exchange with Prospective G-SIIs</u>

74. The IAIS and the relevant authorities will offer any insurer on the preliminary G-SII list an opportunity to exchange information with the IAIS. In advance of this exchange, the IAIS will share confidentially with the Prospective G-SII information regarding that insurer's status through the first three Phases.

75. Before the Phase IV exchange of information between the IAIS, the Prospective G-SII and the relevant authorities, the IAIS will inform the Prospective G-SII of (1) the insurer's score on each of the Phase II indicators, including the data elements received from that insurer that were incorporated into the indicator, (2) for each Phase II indicator, descriptive statistics including the median scores and the distribution of scores within the Insurer Pool (unless such disclosures could reveal confidential information regarding another insurer given the size of the Insurer Pool for a specific indicator) (3) the insurer's overall score and the Phase II quantitative threshold set by the IAIS, and (4) the data and analysis that was considered by the IAIS when evaluating the insurer in Phase III and the outcome of that analysis. The relevant authorities will participate in this exchange of information. This transparency to a Prospective G-SII, not provided through the 2013 Methodology, addresses comments from stakeholders and IAIS members in reply to the IAIS' paper Global Systemically Important Insurers: Proposed Updated Assessment Methodology and facilitates constructive engagement and feedback between the IAIS, relevant authorities and the Prospective G-SII.

76. The IAIS will not share any information with any Prospective G-SII that is not specific to that insurer or otherwise generally applicable to the 2016 Methodology. Under no circumstances will the IAIS share confidential information of another insurer with the Prospective G-SII.

77. During this exchange, the Prospective G-SII may ask questions and present additional information relating to any aspect of the 2016 Methodology. The Prospective G-SII also will have the opportunity to share with the IAIS its perspective and views on the application of Phases I – III to that Prospective G-SII and any accompanying explanatory statements submitted to the IAIS. Phase IV will complement Phases II and III and will be consistently applied and any conclusions from Phase IV will be supported by well-documented and verifiable quantitative and qualitative information. Following Phase IV, the IAIS will not advance an insurer to Phase V if the IAIS determines that the insurer's failure or material distress would not cause significant disruption to the global financial system and economic activity.

Phase V: IAIS Recommendation to the FSB

78. Following annual completion of Phases I – IV of the 2016 Methodology, the IAIS will recommend a list of identified G-SIIs, including Phases II through IV analysis supporting that recommendation, and the application of higher loss absorbency (HLA) to the FSB. The FSB determines whether to accept the IAIS recommendation and whether and, if so, when to publish the recommendation.

79. An insurer will be recommended for identification the first year the 2016 Methodology produces that outcome. Identification as a G-SII by the FSB will then create a two-year minimum presumption of G-SII status during which the IAIS will recommend the identification be maintained even if the insurer's score drops below the threshold after Phases I through V. However, each G-SII shall annually participate in Phases I – V of the 2016 Methodology, thereby allowing for the IAIS to monitor changes within the G-SIIs and within the sector.

80. The 2016 Methodology may be used to assist the IAIS with the determination about the application of HLA to the G-SIIs. While at one time the IAIS contemplated a direct nexus between the empirical phase of the Methodology (now known as Phase II) and the application of HLA to a G-SII, that direct nexus no longer exists. Any adjustments made through Phases III and IV will have a corresponding impact on the application of HLA. The IAIS work on the 2016 Methodology and the NTNI consultation will be evaluated in the context of HLA. The changes in the 2016 Methodology and the NTNI consultation will lead to a change in HLA design and calibration.

V. Transparency

81. As described above, in Phase IV the IAIS will share with the Prospective G-SII detailed information and data on Phase II and Phase III. After Phase V, the IAIS will share with each G-SII the conclusions drawn from Phase IV.

82. For insurers that participate in Phases I and II that are not subject to Phases III – V, the IAIS shall, upon request of the insurers and through the relevant authorities, inform the insurer of (1) the insurer's score on each of the Phase II indicators, including the data elements received from that insurer that were incorporated into the indicator, (2) for each Phase II indicator, descriptive statistics including the median scores and the distribution of scores within the Insurer Pool (unless such disclosures could reveal confidential

information regarding another insurer given the size of the Insurer Pool for a specific indicator), and (3) the insurer's overall score and the overall Phase II quantitative threshold set by the IAIS. This information will be shared after the annual publication by the FSB of a G-SII list, if any. This non-public transparency to insurers participating in the G-SII Assessment Methodology, not provided through the 2013 Methodology, addresses comments from stakeholders and IAIS members in reply to the IAIS' paper Global Systemically Important Insurers: Proposed Updated Assessment Methodology and provides the non-GSII participants a summary of the IAIS review of that insurer. This information is not publicly shared at this time due to the non-public and confidential nature of the information upon which this summary review may be based.

83. Following the annual publication by the FSB of a G-SII list, if any, the IAIS will publicly release the following:

- The aggregate totals for the denominators for each Phase II indicator.
- The absolute reference values used for the Phase II indicators, including the numerator, denominator, and any other factors used to establish the absolute reference value.
- The data template and instructions used in that year's G-SII assessment process.
- The data elements from the data template that comprise the formulae for the Phase II indicators.
- An analysis of aggregate trends in the Insurer Pool, including whether known areas of systemic relevance (e.g. guaranty on structured finance transactions or credit derivatives trading) warrant additional monitoring.
- A description of the nature of the analysis undertaken in Phase III.

The IAIS will move toward a more transparent process for the identification of G-SIIs, including to the public. As the 2016 Methodology is further refined in the coming years, the IAIS commits to further developing public disclosure. While considering all five phases of the 2016 Methodology as integral parts to a robust final outcome, the IAIS will look to disclose Phase II outcomes and Phase III analysis and outcomes as part of its next review which it intends to complete in 2019. These elements of public transparency, not provided through the 2013 Methodology, address comments from stakeholders and IAIS members in reply to the IAIS' paper Global Systemically Important Insurers: Proposed Updated Assessment Methodology and provide the public with summary information of a critical, non-confidential nature regarding the G-SII Assessment Methodology.