

ISDA SIMM™,¹ Crowdsourcing Utility User Guidelines – Data Submission, Determination, and Output of Results

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1. Introduction

1.1. Purpose and Background

- 1.1.1. As part of the ISDA WGMR Implementation Initiative (“ISDA Initiative”) to facilitate the implementation of the margin rules for uncleared derivatives, ISDA has developed an industry solution to support the standardization of certain data components of the ISDA Standard Initial Margin Model (“SIMM™”), which is a common initial margin (IM) methodology that can be used by market participants globally.²
- 1.1.2. The ISDA SIMM is applicable for credit, equities, commodities, interest rates and foreign exchange. Each asset class contains “risk buckets” that will be used to classify risk factor sensitivities to be input into the ISDA SIMM. The risk bucket classification of each risk factor sensitivity is dependent on a number of market observable characteristics associated with the underlier for which the sensitivity is calculated. For example, equity underliers are classified based on size (market capitalization), region, and sector. The output parameters associated with each risk bucket include (1) risk weights to be applied to risk factor sensitivities, (2) correlation parameters among risk factors within the same risk bucket, and (3) correlation parameters across different risk buckets within the same asset class.
- 1.1.3. The ISDA Initiative has determined an approach to facilitate the consistent application of ISDA SIMM parameters to input sensitivities for certain asset classes and products. Specifically, an industry crowdsourcing solution requires the maintenance and dissemination to its subscribers of a mapping table of asset underliers to their appropriate risk buckets. The Utility will facilitate this and also determine the appropriate mappings to risk buckets based on data (“votes”) submitted by its users.
- 1.1.4. This document serves to lay out what ISDA Initiative SIMM licensees participants believe is required to implement the ISDA SIMM crowdsourcing Utility.

² Further information about the ISDA SIMM is available at <http://www2.isda.org/functional-areas/wgmr-implementation/>

2. The Standard Initial Margin Model (ISDA SIMM™)

2.1. Overview

- 2.1.1. In order to facilitate the BCBS-IOSCO requirements outlined in “Margin requirements for non-centrally cleared derivatives,”³ the ISDA Initiative has developed a common methodology – the Standard Initial Margin Model (ISDA SIMM) – which can be used by market participants globally. The SIMM is available for use through licensing by ISDA.
- 2.1.2. Initial margin calculations largely depend on the choice of model and the assumptions used. Under the framework set by the BCBS-IOSCO Working Group on Margin Requirements (“WGMR”), firms can use their own internal models to calculate initial margin, as long as they meet certain criteria and obtain regulatory approval. These models have the potential to differ significantly, raising the possibility that two counterparties will arrive at a different initial margin figure for the same trade. The result would be a rise in the number of disputes and no obvious way to quickly resolve them. A common methodology, such as the ISDA SIMM, offers several key benefits to the market, such as providing a standard methodology, and permitting transparent dispute resolution while allowing consistent regulatory governance and oversight.
- 2.1.3. In the ISDA SIMM, the calculations for margin begin with the generation of net sensitivities for each specified risk factor (e.g., price of an equity instrument), then the generation of risk-weighted sensitivities through the identification of appropriate ISDA SIMM risk buckets for each net sensitivity, and then multiplying the net sensitivity with the corresponding risk weight.
- 2.1.4. In order to have consistent implementation of ISDA SIMM, the treatment of risk weights and correlation parameters to sensitivity values needs to be the same among ISDA SIMM users. The consistent application of these parameters requires consistent allocation of the net sensitivity values to the same ISDA SIMM risk buckets.
- 2.1.5. For certain asset classes, risk weights are clear and therefore treatment will be the same among ISDA SIMM users. However, for credit and equity, to establish consistent allocation of net sensitivity values, sensitivities generated to each risk factor must be mapped consistently to the ISDA SIMM risk bucket.
- 2.1.6. The ISDA Initiative has determined that a crowdsourcing solution is needed to achieve this consistent mapping. The value of crowdsourcing is that parties will use the consensus results instead of their internal determination of risk buckets and weightings.
- 2.1.7. It is an important cornerstone of the ISDA SIMM that the model be inclusive and have no barriers to entry, in order to be viable for counterparties of varying operational capabilities.

³ BCBS-IOSCO “Margin requirements for non-centrally cleared derivatives,” September 2013 <http://www.bis.org/publ/bcbs261.pdf>.
Updated March 2015: <http://www.bis.org/bcbs/publ/d317.pdf>.

3. The Crowdsourcing Utility and Operation

ISDA conducted several tests with live credit and equity portfolios of ISDA Initiative participants, enabling participants to determine the viability of crowdsourcing as well as the parameters of the crowdsourcing solution. A description of guidelines for submitting data (“voting”), identification of asset underliers and production of results are detailed in below.

3.1. Data Submission to the Utility – General Guidelines

- 3.1.1. *Definition of voting entity:* Only one vote per asset underlier in the ISDA SIMM Crowdsourcing Utility may be cast by any number of entities, whether such entities are affiliated with each other or not, in which such entities delegate the decision of these entities’ votes to one specific entity and whose individual members do not exercise independent decision making with respect to such vote. In addition, only entities that are subject to and in-scope of applicable margin requirements for uncleared swaps and are licensed users of ISDA SIMM in compliance with such requirements are permitted to utilize the ISDA SIMM Crowdsourcing Utility to cast a vote.
- 3.1.2. Parties would submit data only for positions on their books that are in scope for uncleared margin requirements.
- 3.1.3. For each underlying asset, each submitting firm provides one identifier with a corresponding ISDA SIMM risk bucket⁴ to the Utility (one “vote”). Each submitting firm applies its own internal logic to determine the vote submitted to the Utility. Current credit ratings should be used, as opposed to credit ratings at origination or trade date.
- 3.1.4. Each vote submitted to the Utility should be a result of a fresh analysis on the asset underlier.
- 3.1.5. Votes submitted to the crowdsourcing Utility ‘expire’ after 7 calendar days to ensure data is current, and to ‘manage out’ votes from firms who no longer hold a position.
- 3.1.6. Submission of votes to the Utility can be provided as frequently as daily. For details of vote submission deadlines and results availability, see the submissions and results timelines agreed by the ISDA WGMR Data Sources work stream in **Appendices and Exhibits §4.1**. The cut-off time noted for data submission to the Utility is to allow firms to capture trades executed at EOD the day prior. For the sake of clarity, a trade executed at 5:00pm ET (T+0) should be included in the data submission cut off time of 5:00am ET, which is 12 hours later (T+1). If the frequency of data submissions were lengthened, then rating changes, new issues, or corporate actions would not be reflected in ISDA SIMM bucket output results from the Utility, which could cause a rise in disputes.
- 3.1.7. Users are strongly encouraged to vote daily to ensure ISDA SIMM risk bucket mappings reflect current market risk levels.
- 3.1.8. Note that each asset underlier must have a minimum of two valid votes in order to be considered in the tally; therefore no result will be reported for a particular asset underlier if the minimum is not met. Each firm would then have to use its own internal determination for daily

⁴ ISDA SIMM Methodology. §E-G. Available at: <http://www2.isda.org/functional-areas/wgmr-implementation/>

IM calculations, increasing the chance of dispute and related costs. A viable, objective universe of votes would aid in any external authority enquires that may occur on the SIMM.

- 3.1.9. Previously submitted votes remain valid until they are overridden or upon their expiry. See **Appendices and Exhibits §4.7** for an example of how daily voting is managed.
- 3.1.10. To ensure that the Utility results are representative of the risk buckets for a particular asset underlier, it is important that input data be captured from as many ISDA SIMM users as possible. As new firms come into scope for uncleared margin requirements, the Utility plans to accommodate these ISDA SIMM users to submit their crowdsourcing votes under the same guidelines and technical specifications.
- 3.1.11. The Utility may need to perform certain checks on incoming data as a part of the process for ensuring data integrity.

The Utility may periodically have clarification questions about specific data, in which case the administrator of the Utility will contact data submitters on an individual basis. This is part of the normal process of maintenance of the SIMM.

- 3.1.12. Note that the Utility may potentially be restricted from using collected data for reasons outside of its primary purposes. ISDA in its oversight capacity will need to approve secondary uses of data.

3.2. Data Submission to the Utility – Asset Class Scope and Asset Identifiers

The scope of participating asset classes and identifiers for asset underliers are provided below. Also refer to “ISDA SIMM Crowdsourcing Utility Vote Submission Client Specifications” provided by the Utility to crowdsourcing participants.

3.2.1. Credit qualifying⁵ (Asset class code: “CRQU”)

Single names:

- Use of an ISIN to identify an asset underlier is required.
- Users will submit one ISIN for each underlier and seniority pairing and a corresponding relevant ISDA SIMM risk bucket. The ISIN string should be prefixed by “ISIN:” and the ISDA SIMM bucket should specify the asset class code of “CRQU” for submission.

For electronic vote submission technical specifications, refer to the “ISDA SIMM Crowdsourcing Utility Vote Submission Client Specifications” which can be obtained from the Utility provider. An example of the manual submission format appears in **Appendices and Exhibits §4.2** for reference or use in testing.

Current ISDA SIMM risk buckets are provided in **Appendices and Exhibits §4.3**. Updates can be viewed in Tables, E, F, G of the latest version of “ISDA SIMM Methodology” posted on the ISDA WGMR Implementation Initiative website.⁶

⁵ ISDA SIMM Methodology. Table §E1. Available at <http://www2.isda.org/functional-areas/wgmr-implementation/>

⁶ <http://www2.isda.org/functional-areas/wgmr-implementation/>

- Recognizing that there may be multiple ISINs for each issuer/seniority pairing, users should submit the ISIN designated by Markit as the RED Preferred ***if known and available***, including for Standard Reference Obligation (SRO) trades. If a RED Preferred ISIN is not known or available, then the ISIN agreed or confirmed on the trade(s) should be submitted.

Indices:

- Credit qualifying indices will be decomposed into constituents, and each constituent mapped to an ISDA SIMM bucket following the same logic as single names.

Reference Entities with no ISINs:

- Industry participants of the ISDA WGMR Data Sources work stream identified a known list of reference entities which have no ISINs. For purposes of the SIMM Crowdsourcing Utility, a set of static Dummy ISINs was agreed for purposes of submission. The table of dummy ISINs is provided in ***Appendices and Exhibits §4.4***.
- Dummy ISINs will be maintained by the Crowdsourcing Utility and published in the reference data files folder “ISDASIMM/Reference” on the Utility server.
- Supplementary information related to Dummy ISINs appears in §3.2.6.

3.2.2. Credit non-qualifying⁷ (Asset class code: “CRNQ”)

Single names:

- Users will submit one ISIN for each underlier and a corresponding relevant ISDA SIMM risk bucket. The ISIN string should be prefixed by “ISIN:” and the ISDA SIMM risk bucket should specify the asset class code of “CRNQ” for submissions.

For electronic vote submission technical specifications, refer to the “ISDA SIMM Crowdsourcing Utility Vote Submission Client Specification” which can be obtained from the Utility provider. An example of the manual submission format appears in ***Appendices and Exhibits, §4.2*** for reference or use in testing.

Current ISDA SIMM risk buckets are provided in ***Appendices and Exhibits §4.3***. Updates can be viewed in Tables, E, F, G of the latest version of “ISDA SIMM Methodology” posted on the ISDA WGMR Implementation Initiative website.⁶

Indices:

- There are no ISINs for credit non-qualifying indices (e.g. ABX/CMBX/ TRS on Interest Only (IO) and TRS on Principal Only (PO)). A set of static Dummy ISINs was agreed for purposes of submissions to the SIMM Crowdsourcing Utility. The table of CRNQ dummy ISINs is provided in ***Appendices and Exhibits, §4.5***.
- Dummy ISINs will be maintained by the Crowdsourcing Utility and published in the reference data files folder “ISDASIMM/Reference” on the Utility server.
- Supplementary information related to Dummy ISINs appears in §3.2.6.

3.2.3. Equities¹⁴ (Asset class code: “EQTY”)

⁷ ISDA SIMM Methodology. Table §F1. Available at <http://www2.isda.org/functional-areas/wgmr-implementation/>

Single names:

- Users will submit one ISIN for each underlier and a corresponding relevant ISDA SIMM bucket. The ISIN string should be prefixed by “ISIN:” and the SIMM bucket should specify the asset class code of “EQTY” for submission.

For electronic vote submission technical specifications, refer to the “ISDA SIMM Crowdsourcing Utility Vote Submission Client Specification” which can be obtained from the Utility provider. An example of a manual submission format appears in **Appendices and Exhibits, §4.2** for reference or use in testing.

Current ISDA SIMM risk buckets are provided in **Appendices and Exhibits §4.3**. Updates can be viewed in Tables, E, F, G of the latest version of “ISDA SIMM Methodology” posted on the ISDA WGMR Implementation Initiative website.⁶

Indices:

- Equity indices do not need to be crowdsourced since there is a distinct ISDA SIMM risk bucket for Equity indices/ETFs/Funds.¹⁴

3.2.4. Other – Commodities, FX, and Rates

- Crowdsourcing does not apply. For further detail regarding the ISDA SIMM for these asset classes, refer to the latest version of “ISDA SIMM Methodology” posted on the ISDA WGMR Implementation Initiative website.⁶

3.2.5. Portfolio Submissions for Compliance Date (interim for transition purposes only)

- For the portfolio universe which should be submitted to the Utility prior to, on, and after the regulatory IM Compliance Date (currently 1 September 2016) in order to ensure sufficient, meaningful, and applicable crowdsourced results for the IM Compliance Date and the days immediately following (known as “Compliance Date Transition Period⁸”), the ISDA WGMR Data Sources work stream agreed the following approach. See footnotes for key to terms used.

Vote Submission Approach for Regulatory IM Compliance Date Transition Period⁸		
Date Start:	Date End:	Action:
1-Aug 2016	31-Aug-2016	<ul style="list-style-type: none"> • From 1-Aug to 31-Aug, firms should submit votes for outstanding (live) trades which are subject to risk margin. If very few firms submit votes in this period, there may be no consensus bucket results for 1-Sep-2016 and firms may then have to look to their internal determination to apply in regulatory IM calculations, increasing the likelihood of disputes. • Each vote submitted to the Utility should be the result of a fresh analysis on the asset underlier. • Utility goes-live on 1-Aug-2016; begins producing daily consensus results.
1-Sep-2016	ongoing >= 1 Sept 2016	<ul style="list-style-type: none"> • Firms should begin submitting votes for the “Reg IM Trades/Positions⁹” portfolio universe. • Each vote submitted to the Utility should be the result of a fresh analysis on the asset underlier.

⁸ “Compliance Date Transition Period” - the period from 1-Sep to and including 16-Sep-2016.

⁹ “Reg IM Trades/Positions” - trades executed on and after 1-Sep-2016 and in-scope for regulatory IM (used in daily SIMM calculations).

1-Sep-2016	30-Sep-2016	<ul style="list-style-type: none"> • Voting on the Back-Population¹⁰ from 1-Sep through 30-Sep-2016 is optional (since the population of votes on in-scope trades is expected to rise gradually after 1-Sep-2016).
1-Sep-2016	5-Sep-2016 (T+2)	<ul style="list-style-type: none"> • Consensus results produced by the Utility would be used from 1-Sep-2016 for daily regulatory IM calculations, similar to business as usual. • If the Back-Population¹⁰ does not produce a consensus result for a particular in-scope trade, then firms could use their own internal determination for that in-scope trade if they choose.

3.2.6. Process for Dummy ISINs

- If a SIMM Utility participant believes that a dummy ISIN is needed for a particular asset underlier, the participant will send the Utility a completed Dummy ISIN Request Form. A blank Request Form can be obtained from the Utility provider. The form will need to be seconded by another, different Participant firm in order to be accepted. The rationale for seconding is that if one Participant requests a dummy ISIN, and no other Participant uses it, then that Dummy ISIN will only have one vote and therefore would never be published. Lack of seconder may also suggest that an ISIN exists for that asset underlier.
- Where possible, the Request Form should be submitted as a joint request from both the primary requestor and seconding firm. When this is not possible, then the primary requester can send a completed Request Form to the Utility. The Utility will conduct initial checks and submit a request to the ISDA WGMR Data Sources work stream or successor ISDA Initiative group to review and take a survey on “seconding.” If the relevant ISDA WGMR work stream does not approve the request, this may indicate that there is already an ISIN or that no other firm other than the primary requestor intends to use a dummy asset identifier; therefore the request will be rejected.
- The Utility will try to validate all requests to ascertain if a real ISIN already exists or not and will work with requestor and seconder.
- The Utility will then publish a new reference data file in the */ISDASIMM/Reference* folder including the new Dummy ISIN.
- Participants should check the */ISDASIMM/Reference* folder daily to detect if a new reference file has been posted, based on the date timestamp of the file. Polling the folder for a new file each day is the most reliable way for Participants to know whether they are using the latest reference data for voting. When a new reference file is published, the old one is moved to the *ISDASIMM/Historical/Reference* folder.

3.3. Determination and Output of Results from the Utility

- 3.3.1. The Utility will determine consensus mappings to risk buckets based on the mode of valid votes received for a particular asset underlier. If, for a particular asset underlier, one SIMM risk bucket has more votes than any other bucket, the bucket with the most votes will be the consensus bucket reported in the results.
- 3.3.2. Note that each asset underlier must have a minimum of two valid votes in order to be considered in the tally; therefore no result will be reported for a particular asset underlier if the

¹⁰ “Back-Population” - trades executed prior to 1-Sep-2016, which are still outstanding (live) on 1-Sep-2016 and subject to risk margin, not just regulatory Initial Margin (“IM”).

minimum is not met. In these instances, it is expected that a firm would use the value with which it voted (i.e. internal value).

- 3.3.3. When aggregating votes, if the Crowdsourcing Utility determines that there is no mode, and two or more SIMM risk buckets receive an equal number of votes (but adhering to the minimum vote guidelines described in this document), the tie shall be resolved using the following tie-breaker logic waterfall:

(i) Votes for the “Residual” bucket will be excluded. If this leaves one bucket with a majority, that bucket shall be the winner.

(ii) If there is still a tied vote, the more punitive bucket, i.e. the bucket with the highest risk weighting, shall be the winner.

(iii) If a tie vote includes two or more buckets with the same risk weighting¹¹, the lowest of these buckets numerically shall be the winner. For the sake of clarity, ISDA SIMM risk bucket number “1” is considered the lowest numerically.

A hypothetical tie breaker example is provided in **Appendices and Exhibits, §4.6**.

- 3.3.4. The bucket which receives the most valid votes, or the winner of the tie breaker rules outlined above, will be reported as the consensus crowdsourced ISDA SIMM risk bucket in the results. An example of the result that will be published if the Utility were to receive a hypothetical set of votes is provided in **Appendices and Exhibits, §4.6**

- 3.3.5. Daily, the Utility will tally the voted ISDA SIMM buckets and publish a final results report of consensus ISDA SIMM buckets for firms to consume.

- 3.3.6. The Utility will provide the output of results daily in accordance with the crowdsourcing submissions and results timelines agreed by the ISDA WGMR Data Sources work stream, shown in **Appendices and Exhibits, §4.1**. Output each day should be based on all relevant votes received prior to that day’s cut-off. Since votes submitted to the crowdsourcing Utility ‘expire’ after 7 calendar days, expired votes would not be tallied by the Utility and therefore would not affect the results.

- 3.3.7. Users of the Utility will receive all output data, not just the asset underliers they submitted to the Utility. In line with an objective that the ISDA SIMM model be inclusive and have no barriers to entry, there may be different tiers of subscribers for reports on results.

- 3.3.8. To ensure that the consensus crowdsourced results are available to users with varying operational capabilities, it is expected that the Utility should be able to deliver results reports via multiple methods and data platforms, taking into account privacy issues.

- 3.3.9. Data results or reports from the Utility may periodically be requested by ISDA for purposes of maintaining the integrity of the SIMM, or by SIMM users or regulators for audit purposes.

3.4. Consumption – Application of results by ISDA SIMM users

- 3.4.1. The data published by the Utility can be used for margin calculations by those entities in scope for margin requirements for non-centrally cleared derivatives as part of the broader application of the ISDA SIMM.

¹¹ Refer to *ISDA SIMM Methodology*. Available at <http://www2.isda.org/functional-areas/wgmr-implementation/>

- 3.4.2. In line with an objective that the ISDA SIMM model be inclusive and have no barriers to entry, it is expected that the Utility will enable SIMM users to consume crowdsourcing results, including each underlying asset identifier and corresponding consensus ISDA SIMM risk bucket, through via multiple data delivery channels as provided by the Utility.
- 3.4.3. Utility output results will be applied by firms for initial margin risk calculations at T+2 days, in accordance with the crowdsourcing submissions and results timelines agreed by the ISDA WGMR Data Sources work stream shown in **Appendices and Exhibits, §4.1**.
- 3.4.4. Each institution may override their internal ISDA SIMM bucket with the ISDA SIMM risk bucket result published by the Utility for IM calculations, if desired.

4. Appendices and Exhibits

4.1. Crowdsourcing submission and results timeline

Timeline for Crowdsourcing vote submissions and results:

	For Trade A executed by:	Vote on Trade A by:	Receive Utility results:	Margin calls
	<i>Trade Date</i> (T+0)	(T+1)	(T+1)	(T+2)
NY:	5:00pm ET 0	5:00am ET + 12 hours	5:15am ET + 12.25 hours	9:00am ET + 40 hours
UK:	10:00pm	10:00am	10:15am	2:00pm
HK/SGP:	5:00am (+1)	5:00pm	5:15pm	9:00pm
AU:	7:00am (+1)	7:00pm	7:15pm	11:00pm

4.2. Example of a manual submission format

A template similar to the below has been designed to help crowdsourcing participants generate a vote submission file in the correct format. Contact ISDA or the Utility for the template should it be required, such as for testing.

For electronic file format requirements, contact the Utility for the latest Technical Specifications.

Example of manual submission format			
		Save CSV	
File Location	C:\Temp\		
Last saved	10/06/2016 12:45:55, Saved File: "C:\TEMP\SIMM-ABCD1234-20160610-153727.csv"		
<i>Note: Blank the "File Location" field above to be prompted for a new location.</i>			
Participant ID	ABCD1234		
Participant ID ▼	Asset Class ▼	Asset ID (ISIN) ▼	Risk bucket ID ▼
ABCD1234	EQTY	ISIN:GB00BH4HKS39	6
ABCD1234	CRQU	ISIN:XS0181816652	5
ABCD1234	CRNQ	ISIN:XS0595707570	2
ABCD1234	CRQU	ISIN:XS2345678901	Residual

4.3. ISDA SIMM risk buckets applicable to the Utility

4.3.1. Credit Qualifying¹²

Bucket number	Credit quality	Sector	
1	Investment grade (IG)	Sovereigns including central banks	
2		Financials including government-backed financials	
3		Basic materials, energy, industrials	
4		Consumer	
5		Technology, telecommunications	
6		Health care, utilities, local government, government-backed corporates (non- financial)	
7		High yield (HY) & non-rated (NR)	Sovereigns including central banks
8			Financials including government backed financials
9			Basic materials, energy, industrials
10			Consumer
11			Technology, telecommunications
12			Health care, utilities, local government, government-backed corporates (non- financial)
Residual			

If it is not possible to allocate a sensitivity or risk exposure to one of these buckets (for example, because data on categorical variables is not available), then the position must be allocated to the “Residual” bucket.

4.3.2. Credit Non-Qualifying¹³

Bucket number	Credit quality	Sector
1	Investment grade (IG)	RMBS/CMBS
2	High yield (HY) & non-rated (NR)	RMBS/CMBS
Residual		

If it is not possible to allocate a sensitivity or risk exposure to one of these buckets (for example, because data on categorical variables is not available), then the position must be allocated to the “Residual” bucket.

¹² ISDA SIMM Methodology. Table §E1. Available at <http://www2.isda.org/functional-areas/wgmr-implementation/>

¹³ ISDA SIMM Methodology. Table §F1. Available at <http://www2.isda.org/functional-areas/wgmr-implementation/>

4.3.3. Equities¹⁴

Bucket number	Size	Region	Sector
1	Large	Emerging markets	Consumer goods and services, transportation and storage, administrative and support service activities, utilities
2			Telecommunications, industrials
3			Basic materials, energy, agriculture, manufacturing, mining and quarrying
4			Financials including gov't-backed financials, real estate activities, technology
5		Developed markets	Consumer goods and services, transportation and storage, administrative and support service activities, utilities
6			Telecommunications, industrials
7			Basic materials, energy, agriculture, manufacturing, mining and quarrying
8			Financials including gov't-backed financials, real estate activities, technology
9	Small	Emerging markets	All sectors
10		Developed markets	All sectors
11	All	All	Indexes, Funds, ETFs

If it is not possible to allocate a sensitivity or risk exposure to one of these buckets (for example, because data on categorical variables is not available), then the position must be allocated to the “Residual” bucket

¹⁴ ISDA SIMM Methodology. Table §G1. Available at <http://www2.isda.org/functional-areas/wgmr-implementation/>

4.4. Credit qualifying (CRQU) dummy ISIN table

ISDA Initiative industry participants identified a known list of CRQU reference entities which have no valid ISINs. A set of static Dummy ISINs was agreed for purposes of submission to the SIMM Crowdsourcing Utility. For the specific Reference Entity names listed below, use the Dummy ISIN listed when submitting to the Utility.

RiskType	ID	Name
CRQU	ISIN:XSSIMMADVAN1	ADVANTEST CORPORATION
CRQU	ISIN:XSSIMMASSUR4	ASSURED GUARANTY MUNICIPAL CORP.
CRQU	ISIN:XSSIMMCANON1	CANON INC.
CRQU	ISIN:XSSIMMDEBEN7	DEBENHAMS FINANCE HOLDINGS LIMITED
CRQU	ISIN:XSSIMMEVRAZ7	Evraz Group S.A.
CRQU	ISIN:XSSIMMGAZPR4	JSC 'GAZPROM'
CRQU	ISIN:XSSIMMVTBBN3	JSC VTB Bank
CRQU	ISIN:XSSIMMVNESH6	JSC Vneshtorgbank
CRQU	ISIN:XSSIMMRUSRA6	Joint Stock Company 'Russian Railways'
CRQU	ISIN:XSSIMMALFAJ5	Joint Stock Company 'ALFA-BANK'
CRQU	ISIN:XSSIMMALFAO5	Open Joint-Stock Company 'ALFA-BANK'
CRQU	ISIN:XSSIMMKABEL4	Kabel Deutschland Vertrieb und Service GmbH
CRQU	ISIN:XSSIMMSAUDI5	Kingdom of Saudi Arabia
CRQU	ISIN:XSSIMMMBIAC0	MBIA Insurance Corporation
CRQU	ISIN:XSSIMMLUKOI6	Open Joint Stock Company 'Oil Company 'LUKOIL'
CRQU	ISIN:XSSIMMROSNE0	Open Joint Stock Company 'Oil Company Rosneft'
CRQU	ISIN:XSSIMMVIMPE2	Open Joint Stock Company 'Vimpel-Communications'
CRQU	ISIN:XSSIMMRINDI5	Republic of India
CRQU	ISIN:XSSIMMRUSAG9	Russian Agricultural Bank
CRQU	ISIN:XSSIMMSBERB2	Sberbank
CRQU	ISIN:XSSIMMSOMPO5	Sompo Japan Insurance Inc.

4.5. Credit non-qualifying (CRNQ) dummy ISIN table

For Credit non-qualifying Indices, ISDA Initiative industry participants identified a known list of CRNQ reference entities which have no ISINs. For purposes of the SIMM Crowdsourcing Utility, a set of static Dummy ISINs was agreed for purposes of submission. For the specific Index names listed below, use the relevant Dummy ISIN listed when submitting to the Crowdsourcing Utility.

RiskType	ID	Name	RiskType	ID	Name
CRNQ	ISIN:XSSIMMC00016	ABX.HE.A.06-1	CRNQ	ISIN:XSSIMMC00446	CMBX.NA.AJ.1
CRNQ	ISIN:XSSIMMC00024	ABX.HE.A.06-2	CRNQ	ISIN:XSSIMMC00453	CMBX.NA.AJ.2
CRNQ	ISIN:XSSIMMC00040	ABX.HE.A.07-2	CRNQ	ISIN:XSSIMMC00461	CMBX.NA.AJ.3
CRNQ	ISIN:XSSIMMC00057	ABX.HE.AA.06-1	CRNQ	ISIN:XSSIMMC00479	CMBX.NA.AJ.4
CRNQ	ISIN:XSSIMMC00065	ABX.HE.AA.06-2	CRNQ	ISIN:XSSIMMC00487	CMBX.NA.AJ.5
CRNQ	ISIN:XSSIMMC00073	ABX.HE.AA.07-1	CRNQ	ISIN:XSSIMMC00495	CMBX.NA.AM.1
CRNQ	ISIN:XSSIMMC00081	ABX.HE.AA.07-2	CRNQ	ISIN:XSSIMMC00503	CMBX.NA.AM.2
CRNQ	ISIN:XSSIMMC00099	ABX.HE.AAA.06-1	CRNQ	ISIN:XSSIMMC00511	CMBX.NA.AM.3
CRNQ	ISIN:XSSIMMC00107	ABX.HE.AAA.06-2	CRNQ	ISIN:XSSIMMC00529	CMBX.NA.AM.4
CRNQ	ISIN:XSSIMMC00115	ABX.HE.AAA.07-1	CRNQ	ISIN:XSSIMMC00537	CMBX.NA.AM.5
CRNQ	ISIN:XSSIMMC00123	ABX.HE.AAA.07-2	CRNQ	ISIN:XSSIMMC00545	CMBX.NA.AS.6
CRNQ	ISIN:XSSIMMC00131	ABX.HE.BBB.06-1	CRNQ	ISIN:XSSIMMC00552	CMBX.NA.AS.7
CRNQ	ISIN:XSSIMMC00149	ABX.HE.BBB-.06-1	CRNQ	ISIN:XSSIMMC00560	CMBX.NA.BB.2
CRNQ	ISIN:XSSIMMC00156	ABX.HE.BBB.06-2	CRNQ	ISIN:XSSIMMC00578	CMBX.NA.BB.3
CRNQ	ISIN:XSSIMMC00164	ABX.HE.BBB-.06-2	CRNQ	ISIN:XSSIMMC00586	CMBX.NA.BB.6
CRNQ	ISIN:XSSIMMC00172	ABX.HE.PENAAA.06-1	CRNQ	ISIN:XSSIMMC00594	CMBX.NA.BB.7
CRNQ	ISIN:XSSIMMC00180	ABX.HE.PENAAA.06-2	CRNQ	ISIN:XSSIMMC00602	CMBX.NA.BB.8
CRNQ	ISIN:XSSIMMC00198	ABX.HE.PENAAA.07-1	CRNQ	ISIN:XSSIMMC00610	CMBX.NA.BBB.1
CRNQ	ISIN:XSSIMMC00206	ABX.HE.PENAAA.07-2	CRNQ	ISIN:XSSIMMC00628	CMBX.NA.BBB-.1
CRNQ	ISIN:XSSIMMC00214	CMBX.NA.A.1	CRNQ	ISIN:XSSIMMC00636	CMBX.NA.BBB.2
CRNQ	ISIN:XSSIMMC00222	CMBX.NA.A.2	CRNQ	ISIN:XSSIMMC00644	CMBX.NA.BBB-.2
CRNQ	ISIN:XSSIMMC00230	CMBX.NA.A.3	CRNQ	ISIN:XSSIMMC00651	CMBX.NA.BBB.3
CRNQ	ISIN:XSSIMMC00248	CMBX.NA.A.4	CRNQ	ISIN:XSSIMMC00669	CMBX.NA.BBB-.3
CRNQ	ISIN:XSSIMMC00255	CMBX.NA.A.5	CRNQ	ISIN:XSSIMMC00677	CMBX.NA.BBB.4
CRNQ	ISIN:XSSIMMC00263	CMBX.NA.A.6	CRNQ	ISIN:XSSIMMC00685	CMBX.NA.BBB-.4
CRNQ	ISIN:XSSIMMC00271	CMBX.NA.A.7	CRNQ	ISIN:XSSIMMC00693	CMBX.NA.BBB.5
CRNQ	ISIN:XSSIMMC00289	CMBX.NA.AA.1	CRNQ	ISIN:XSSIMMC00701	CMBX.NA.BBB-.6
CRNQ	ISIN:XSSIMMC00297	CMBX.NA.AA.2	CRNQ	ISIN:XSSIMMC00719	CMBX.NA.BBB-.7
CRNQ	ISIN:XSSIMMC00305	CMBX.NA.AA.3	CRNQ	ISIN:XSSIMMC00727	CMBX.NA.BBB-.8
CRNQ	ISIN:XSSIMMC00313	CMBX.NA.AA.4	CRNQ	ISIN:XSSIMMC00735	IOS.FN30.300.12
CRNQ	ISIN:XSSIMMC00321	CMBX.NA.AA.5	CRNQ	ISIN:XSSIMMC00743	IOS.FN30.300.13
CRNQ	ISIN:XSSIMMC00339	CMBX.NA.AA.6	CRNQ	ISIN:XSSIMMC00750	IOS.FN30.350.10
CRNQ	ISIN:XSSIMMC00347	CMBX.NA.AA.7	CRNQ	ISIN:XSSIMMC00768	IOS.FN30.350.12
CRNQ	ISIN:XSSIMMC00354	CMBX.NA.AA.8	CRNQ	ISIN:XSSIMMC00776	IOS.FN30.350.13
CRNQ	ISIN:XSSIMMC00362	CMBX.NA.AAA.1	CRNQ	ISIN:XSSIMMC00792	IOS.FN30.400.09
CRNQ	ISIN:XSSIMMC00370	CMBX.NA.AAA.2	CRNQ	ISIN:XSSIMMC00800	IOS.FN30.400.10
CRNQ	ISIN:XSSIMMC00388	CMBX.NA.AAA.3	CRNQ	ISIN:XSSIMMC00818	IOS.FN30.400.11
CRNQ	ISIN:XSSIMMC00396	CMBX.NA.AAA.4	CRNQ	ISIN:XSSIMMC00826	IOS.FN30.400.13
CRNQ	ISIN:XSSIMMC00404	CMBX.NA.AAA.5	CRNQ	ISIN:XSSIMMC00834	IOS.FN30.450.09
CRNQ	ISIN:XSSIMMC00412	CMBX.NA.AAA.6	CRNQ	ISIN:XSSIMMC00842	IOS.FN30.450.10
CRNQ	ISIN:XSSIMMC00420	CMBX.NA.AAA.7	CRNQ	ISIN:XSSIMMC00859	IOS.FN30.450.11
CRNQ	ISIN:XSSIMMC00438	CMBX.NA.AAA.8	CRNQ	ISIN:XSSIMMC00867	IOS.FN30.500.03
CRNQ	ISIN:XSSIMMC00891	IOS.FN30.500.10	CRNQ	ISIN:XSSIMMC00875	IOS.FN30.500.08

RiskType	ID	Name
CRNQ	ISIN:XSSIMMC00909	IOS.FN30.550.05
CRNQ	ISIN:XSSIMMC00917	IOS.FN30.550.08
CRNQ	ISIN:XSSIMMC00925	IOS.FN30.600.08
CRNQ	ISIN:XSSIMMC00933	IOS.FN30.650.67
CRNQ	ISIN:XSSIMMC00941	IOS.GII30.500.10
CRNQ	ISIN:XSSIMMC00958	MBX.FN30.400.09
CRNQ	ISIN:XSSIMMC00966	MBX.FN30.450.09
CRNQ	ISIN:XSSIMMC00974	MBX.FN30.500.09
CRNQ	ISIN:XSSIMMC00982	MBX.FN30.500.10
CRNQ	ISIN:XSSIMMC01014	MBX.FN30.550.08
CRNQ	ISIN:XSSIMMC01022	MBX.FN30.600.08
CRNQ	ISIN:XSSIMMC01030	MBX.GII30.450.10
CRNQ	ISIN:XSSIMMC01048	PRIMEX.ARM.1
CRNQ	ISIN:XSSIMMC01055	PrimeX.ARM.2
CRNQ	ISIN:XSSIMMC01063	PRIMEX.FRM.1
CRNQ	ISIN:XSSIMMC01071	PRIMEX.FRM.2
CRNQ	ISIN:XSSIMMC01089	TABX.HE.07-1.06-2.BBB-.40-100
CRNQ	ISIN:XSSIMMC01097	CMBX.NA.BB.4
CRNQ	ISIN:XSSIMMC01105	CMBX.NA.BBB-.5
CRNQ	ISIN:XSSIMMC01113	CMBX.NA.BB.5
CRNQ	ISIN:XSSIMMC01121	CMBX.NA.AS.8
CRNQ	ISIN:XSSIMMC01139	CMBX.NA.A.8
CRNQ	ISIN:XSSIMMC01147	CMBX.NA.AAA.9
CRNQ	ISIN:XSSIMMC01154	CMBX.NA.AS.9
CRNQ	ISIN:XSSIMMC01162	CMBX.NA.AA.9
CRNQ	ISIN:XSSIMMC01170	CMBX.NA.A.9
CRNQ	ISIN:XSSIMMC01188	CMBX.NA.BBB-.9
CRNQ	ISIN:XSSIMMC01196	CMBX.NA.BB.9
CRNQ	ISIN:XSSIMMC01204	ABX.HE.A.07-1
CRNQ	ISIN:XSSIMMC01212	ABX.HE.BBB.07-1
CRNQ	ISIN:XSSIMMC01220	ABX.HE.BBB-.07-1
CRNQ	ISIN:XSSIMMC01238	ABX.HE.BBB.07-2
CRNQ	ISIN:XSSIMMC01246	ABX.HE.BBB-.07-2
CRNQ	ISIN:XSSIMMC01253	PO.FN30.400.09
CRNQ	ISIN:XSSIMMC01261	PO.FN30.450.09
CRNQ	ISIN:XSSIMMC01279	PO.FN30.500.09
CRNQ	ISIN:XSSIMMC01287	PO.FN30.550.08
CRNQ	ISIN:XSSIMMC01295	PO.FN30.600.08
CRNQ	ISIN:XSSIMMC01303	PO.FN30.650.67
CRNQ	ISIN:XSSIMMC01311	MBX.FN30.650.67
CRNQ	ISIN:XSSIMMC01329	MBX.FN30.350.10
CRNQ	ISIN:XSSIMMC01337	MBX.FN30.400.10
CRNQ	ISIN:XSSIMMC01345	MBX.FN30.450.10

RiskType	ID	Name
CRNQ	ISIN:XSSIMMC00883	IOS.FN30.500.09
CRNQ	ISIN:XSSIMMC01352	PO.FN30.350.10
CRNQ	ISIN:XSSIMMC01360	PO.FN30.400.10
CRNQ	ISIN:XSSIMMC01378	PO.FN30.450.10
CRNQ	ISIN:XSSIMMC01386	PO.FN30.500.10
CRNQ	ISIN:XSSIMMC01394	MBX.FN30.500.03
CRNQ	ISIN:XSSIMMC01402	MBX.FN30.500.05
CRNQ	ISIN:XSSIMMC01410	MBX.FN30.500.08
CRNQ	ISIN:XSSIMMC01428	MBX.FN30.550.03
CRNQ	ISIN:XSSIMMC01436	MBX.FN30.550.05
CRNQ	ISIN:XSSIMMC01444	IOS.FN30.500.05
CRNQ	ISIN:XSSIMMC01451	IOS.FN30.550.03
CRNQ	ISIN:XSSIMMC01469	PO.FN30.500.03
CRNQ	ISIN:XSSIMMC01477	PO.FN30.500.05
CRNQ	ISIN:XSSIMMC01485	PO.FN30.500.08
CRNQ	ISIN:XSSIMMC01493	PO.FN30.550.03
CRNQ	ISIN:XSSIMMC01501	PO.FN30.550.05
CRNQ	ISIN:XSSIMMC01519	MBX.GII30.400.10
CRNQ	ISIN:XSSIMMC01527	MBX.GII30.500.10
CRNQ	ISIN:XSSIMMC01535	IOS.GII30.400.10
CRNQ	ISIN:XSSIMMC01543	IOS.GII30.450.10
CRNQ	ISIN:XSSIMMC01550	MBX.FN30.400.11
CRNQ	ISIN:XSSIMMC01568	MBX.FN30.450.11
CRNQ	ISIN:XSSIMMC01576	PO.FN30.400.11
CRNQ	ISIN:XSSIMMC01584	PO.FN30.450.11
CRNQ	ISIN:XSSIMMC01592	PO.GII30.400.10
CRNQ	ISIN:XSSIMMC01600	PO.GII30.450.10
CRNQ	ISIN:XSSIMMC01618	PO.GII30.500.10
CRNQ	ISIN:XSSIMMC01626	MBX.FN30.300.12
CRNQ	ISIN:XSSIMMC01634	PO.FN30.300.12
CRNQ	ISIN:XSSIMMC01642	MBX.FN30.350.12
CRNQ	ISIN:XSSIMMC01659	PO.FN30.350.12
CRNQ	ISIN:XSSIMMC01667	MBX.FN30.300.13
CRNQ	ISIN:XSSIMMC01675	PO.FN30.300.13
CRNQ	ISIN:XSSIMMC01683	MBX.FN30.350.13
CRNQ	ISIN:XSSIMMC01691	PO.FN30.350.13
CRNQ	ISIN:XSSIMMC01709	MBX.FN30.400.13
CRNQ	ISIN:XSSIMMC01717	PO.FN30.400.13
CRNQ	ISIN:XSSIMMC01725	IOS.FN30.350.14
CRNQ	ISIN:XSSIMMC01733	MBX.FN30.350.14
CRNQ	ISIN:XSSIMMC01741	PO.FN30.350.14
CRNQ	ISIN:XSSIMMC01758	IOS.FN30.400.14
CRNQ	ISIN:XSSIMMC01766	MBX.FN30.400.14
CRNQ	ISIN:XSSIMMC01774	PO.FN30.400.14

4.6. Example demonstrating Tie-breaker logic

The following is a hypothetical example of the result that would be published if the Utility were to receive the following valid votes in the EQTY asset class for ISIN XX1111111111:

# of valid votes rec'd by SIMM Utility	for SIMM Bucket #	Risk Weight
3	2	28
3	3	28
3	4	25
2	5	18
3	Residual	28

- i. The asset has more than 2 votes in total, so it can be crowdsourced.
- ii. Buckets 2, 3, 4 and Residual all tie for most votes, with 3 votes each.
- iii. We can exclude any buckets with fewer votes (in this case, Bucket 5 is excluded).
- iv. As it is not the sole winner, we exclude Residual, so are left with a tied vote between Buckets 2, 3 and 4.
- v. We exclude Bucket 4 as it does not have the highest risk weighting.
- vi. Buckets 2 and 3 are still tied, with 3 votes each and both with risk weighting 28, so the consensus bucket is chosen based on the lowest bucket number.

Result: The consensus bucket for ISIN XX1111111111 is Equity SIMM bucket 2.

4.7. Examples of how daily voting is managed

If Firm B submits 100 votes to the ISDA SIMM Crowdsourcing Utility on March 6th and then Firm B submits 10 new votes on March 7th, the set of 10 will supersede the set of 100 votes and will be included in the March 7th results. The 100 submissions from March 6th would no longer be counted when the Utility tallies the March 7th consensus results.

If Firm B submits 100 votes on March 6th and Firm B submits nothing on March 7th, then the 100 submissions from March 6th are still used when the Utility tallies the March 7th consensus results. If Firm B submits nothing on March 8th, the 100 submissions from March 6th will still be used when the Utility tallies the March 8th consensus results. This continues each day if Firm B continues to submit nothing to the Utility, however, to prevent Firm B's indefinite voting inactivity (e.g. votes going stale), Firm B's set of 100 votes submitted on March 6th will expire in 7 calendar days.