

## Supplemental Interest Rates, Risk Free Rates (RFR) and EONIA Definitions

### to a Swiss Master Agreement for OTC Derivative Instruments published by the Swiss Bankers Association (2003 and 2013 versions)

These Supplemental Interest Rates, Risk Free Rates (RFR) and EONIA Definitions shall be deemed to apply to any Transactions entered into by reference to interest rates, provided that the parties refer to the terms of these Supplemental Definitions in the documentation of the Transaction or they have otherwise agreed to apply such Supplemental Definitions to the relevant Transaction or, as applicable, a Master Agreement or a Credit Support Document. Unless otherwise agreed, any reference to terms defined in these Supplemental Definitions in the relevant documentation of the Transaction shall be deemed to be a reference to the most recent version of these Supplemental Definitions, as published by the Swiss Bankers Association at the time the reference is made. These Supplemental Definitions shall form an integral part of the relevant Annex to the Master Agreement or the Confirmation, as applicable.

## Part A: Supplemental Definitions for Interest Rates

### 1. Corrections to published and displayed rates

For purposes of determining the relevant floating rate for any day:

- (i) in any case where such rate is based on information obtained from the Reuters Screen, Bloomberg Screen, Check Screen, ICAP SwapPX Screen or SwapMarker Screen, that rate will be subject to the corrections, if any, to that information subsequently displayed by that source within one hour of the time when such rate is first displayed by such source;
- (ii) in any case where such rate for a day is based on information obtained from H.15(519) or H.15 Daily Update, that rate will be subject to the corrections, if any, to that information subsequently published by that source within 30 days of that day; and
- (iii) in the event that a party notifies the other party of any correction referred to in subsections (i) or (ii) above no later than 15 days after the expiration of the period referred to in such subsection, an appropriate amount will be payable as a result of such correction (as regards a Transaction, whether such correction is made or such notice is given before or after the termination date of the Transaction), together with interest on that amount at a rate per annum equal to the cost (without proof or evidence of any actual cost) to the relevant party (as certified by it) of funding that amount for the period from, and including, the day on which, based on such correction, a payment in the incorrect amount was first made to, but excluding, the day of payment of the refund or payment resulting from such correction.

## 2. Interpolation

In respect of any Calculation Period to which “linear interpolation” is applicable, the relevant floating rate for the reset date in respect of that Calculation Period or any compounding period included in that Calculation Period shall be determined through the use of straight-line interpolation by reference to two rates based on the relevant floating rate, one of which shall be determined as if the designated maturity were the period of time for which rates are available next shorter than the length of the Calculation Period or compounding period (or any alternative designated maturity agreed to by the parties) and the other of which shall be determined as if the designated maturity were the period of time for which rates are available next longer than the length of the Calculation Period or compounding period (or any alternative designated maturity agreed to by the parties).

## 3. Rounding

For purposes of any calculations (unless otherwise specified), (i) all percentages resulting from such calculations other than those determined through the use of interpolation by reference to two rates will be rounded, if necessary, to the nearest one hundred-thousandth of a percentage point (e.g., 9.876541 % (or 0.09876541) being rounded down to 9.87654% (or 0.0987654) and 9.876545% (or 0.09876545) being rounded up to 9.87655% (or 0.0987655); and -9.876541% (or -0.09876541) being rounded up to -9.87654% (or -0.0987654) and -9.876545% (or -0.09876545) being rounded down to -9.87655% (or -0.0987655)), (ii) all percentages determined through the use of interpolation by reference to two rates will be rounded, if necessary, in accordance with the method set forth in subsection (i) above, but to the same degree of accuracy as the two rates used to make the determination (except that such percentages will not be rounded to a lower degree of accuracy than the nearest one thousandth of a percentage point (0.001%)) and (iii) all currency amounts used in or resulting from such calculations will be rounded to the nearest two decimal places in the relevant currency (with 0.005 being rounded upwards (e.g., 0.674 being rounded down to 0.67 and 0.675 being rounded up to 0.68)).

## 4. Discontinued Rates Maturities Protocol

Each Confirmation shall be deemed to incorporate the terms of the ISDA 2013 Discontinued Rates Maturities Protocol as published by the International Swaps and Derivatives Association, Inc. on October 11, 2013 and shall be deemed to be a Protocol Covered Transaction for the purposes of applying the terms of such ISDA 2013 Discontinued Rates Maturities Protocol. Any capitalized term used in this section (4) and defined in the ISDA 2013 Discontinued Rates Maturities Protocol shall have the meaning as defined in the ISDA 2013 Discontinued Rates Maturities Protocol. If an Affected Discontinued Rate or an Affected Interpolated Rate is to be determined for any relevant date for a Protocol Covered Transaction for which (a) there is no Overriding Fallback Provision therefor, and (b) the Fixing Date(s) therefor occurs (i) on or after the Amendment Effective Date for the Protocol Covered Transaction and (ii) on or after the Discontinuation Date for the relevant Affected Discontinued Rate(s), then notwithstanding anything to the contrary herein, the rate used in lieu of such Affected Discontinued Rate or such Affected Interpolated Rate, as applicable, for such relevant date shall be the Interpolated Rate in relation to such Affected Discontinued Rate or such Affected Interpolated Rate, as applicable, for such relevant date.

For the purposes of applying the ISDA 2013 Discontinued Rates Maturities Protocol, (i) references to a "Protocol Covered Transaction" will be deemed to be references to each Transaction, (ii) any references to "Adhering Parties" shall be deemed to be references to the parties to each such Transaction, (iii) any references to an "ISDA Master Agreement" or any provisions of an "ISDA Master Agreement" (including the Schedule thereto) or the "Swap Definitions" shall be deemed to be replaced by references to the Master Agreement (including any Annexes thereto), as amended and supplemented, and the relevant provisions thereof corresponding to the respective sections of the ISDA Master Agreement or the 2006 ISDA Definitions, as applicable and (iv) any references to a "Credit Support Document" shall be deemed to be references to a Credit Support Document as defined in these Supplemental Interest Rates, Risk Free Rates (RFR) and EONIA Definitions.

For the purposes of interpreting the ISDA 2013 Discontinued Rates Maturities Protocol, as so incorporated,

- (a) any reference in the ISDA 2013 Discontinued Rates Maturities Protocol to "Calculation Period" shall be deemed to be a reference to the Calculation Period as defined in the Master Agreement;
- (b) any reference in the ISDA 2013 Discontinued Rates Maturities Protocol to "Compounding Period" shall be deemed to be a reference to the following parts of the Master Agreement: (i) if the Master Agreement is the 2003 version of a Swiss Master Agreement, to a compounding period applicable to the calculation of Annex B.1.2 or 1.3, and (ii) if the Master Agreement is a 2013 version of a Swiss Master Agreement, to a Compounding Period as defined in the Master Agreement;
- (c) any reference in the ISDA 2013 Discontinued Rates Maturities Protocol to "Floating Rate" shall be deemed to be a reference to the following parts of the Master Agreement: (i) if the Master Agreement is the 2003 version of a Swiss Master Agreement, to the floating rate for purposes of the calculation of Annex B.1.2 or 1.3, and (ii) if the Master Agreement is a 2013 version of a Swiss Master Agreement, to the Floating Rate as defined in the Master Agreement;
- (d) any reference in the ISDA 2013 Discontinued Rates Maturities Protocol to "Floating Rate Option" shall be deemed to be a reference to the following parts of the Master Agreement: (i) if the Master Agreement is the 2003 version of a Swiss Master Agreement, to the type of floating rate used in the calculation of Annex B.1.2 or 1.3, and (ii) if the Master Agreement is a 2013 version of a Swiss Master Agreement, to the Floating Rate Option as defined in the Master Agreement;
- (e) any reference in the ISDA 2013 Discontinued Rates Maturities Protocol to "Governing Master Agreement" shall be deemed to be a reference to the Master Agreement;
- (f) any reference in the ISDA 2013 Discontinued Rates Maturities Protocol to "Relevant Rate" shall be deemed to be a reference to the following parts of the Master Agreement: (i) if the Master Agreement is the 2003 version of a Swiss Master Agreement, to the floating rate regarding the period the calculation of Annex B.1.2 or 1.3 relates to, and (ii) if the Master Agreement is a 2013 version of a Swiss Master Agreement, to the Floating Rate as determined for the Calculation Period; and
- (g) any reference in the ISDA 2013 Discontinued Rates Maturities Protocol to "Reset Date" shall be deemed to be a reference to the following parts of the Master Agreement: (i) if

the Master Agreement is the 2003 version of a Swiss Master Agreement, to the date as of which the floating interest rate pursuant to the calculation of Annex B.1.2 or 1.3 relates to, and (ii) if the Master Agreement is a 2013 version of a Swiss Master Agreement, to the Reset Date as defined in the Master Agreement.

#### 5. Fixed negative interest rates

Unless agreed otherwise between the parties, if the Fixed Amount or fixed rate payment amount payable by a party on a payment date is a negative number (due to a quoted negative fixed rate), then the Fixed Amount or fixed rate payment amount payable by that party on that payment date will be deemed to be zero, and the other party will pay to that party the absolute value of the negative Fixed Amount or fixed rate payment amount as calculated, in addition to any amounts otherwise payable by the other party for the related calculation period, on that payment date. Any amounts paid by the other party with respect to the absolute value of a negative Fixed Amount or fixed rate payment amount will be paid to such account as the receiving party may designate (unless such other party gives timely notice of a reasonable objection to such designation) in the currency in which that Fixed Amount or fixed rate payment amount would have been paid if it had been a positive number (and without regard to the currency in which the other party is otherwise obligated to make payments).

#### 6. Definitions

The following terms used in these Supplemental Interest Rates, Risk Free Rates (RFR) and EONIA Definitions shall have the meaning set out below:

- **"2006 ISDA Definitions"** means the 2006 ISDA Definitions, as published by ISDA on the trade date of the relevant Transaction, or any successor publication thereto as published by ISDA on such trade date.
- **"Administrator/Benchmark Event"** means, in relation to a Transaction referencing a Relevant Benchmark, delivery of a notice by one party to the other (and the Calculation Agent, if the Calculation Agent is not a party thereto) specifying, and citing Publicly Available Information that reasonably confirms, that any authorisation, registration, recognition, endorsement, equivalence decision, approval or inclusion in any official register in respect of the Relevant Benchmark or the administrator or sponsor of the Relevant Benchmark has not been, or will not be, obtained or has been, or will be, rejected, refused, suspended or withdrawn by the relevant competent authority or other relevant official body, in each case with the effect that either or both of the parties or the Calculation Agent is not, or will not be, permitted under any applicable law or regulation to use the Relevant Benchmark to perform its or their respective obligations under the Confirmation.
- **"Administrator/Benchmark Event Date"** means, in relation to an Administrator/Benchmark Event, the date on which the authorization, registration, recognition, endorsement, equivalence decision, approval or inclusion in an official register is (a) required under any applicable law or regulation, or (b) rejected, refused, suspended or withdrawn, if the applicable law or regulation provides that the Relevant Benchmark is not permitted to be used under the Confirmation following rejection, refusal, suspension or withdrawal.

- **"Affected Benchmark"** means a benchmark affected by an Administrator/Benchmark Event or by an Index Cessation Event.
- **"Banking Day"** means, in respect of the relevant city, any day on which commercial banks are open for general business (including dealings in foreign exchange and foreign currency deposits) in that city.
- **"Bloomberg Screen"** means, when used in connection with any designated page and any floating rate, the display page so designated on the Bloomberg service, or any Successor Source.
- **"Calculation Period"** means the relevant period used to calculate the amounts owed by reference to a Relevant Benchmark.
- **"Check Screen"** means, when used in connection with any designated page and any floating rate, the display page so designated by the Korea Securities Computer Corporation, or any Successor Source.
- **"Confirmation"** means all documents and other confirming evidence relating to a Transaction.
- **"Covered ISDA Definitions Booklet"** means each of the 2006 ISDA Definitions, the 2000 ISDA Definitions, the 1998 ISDA Euro Definitions, the 1998 Supplement to the 1991 ISDA Definitions and the 1991 ISDA Definitions, each as published by ISDA.
- **"Credit Support Appendix"** means a Credit Support Appendix in the form as published by the Swiss Bankers Association in relation to a Swiss Master Agreement for OTC Derivative Instruments.
- **"Credit Support Document"** means any document, which by its terms secures, guarantees or otherwise supports the obligations of the relevant party under a Master Agreement or Confirmation, including without limitation each Credit Support Appendix entered into between the parties in relation to a Master Agreement.
- **"H.15(519)"** means the weekly statistical release designated as such published by the Federal Reserve System Board of Governors, or its successor, available through the website of the Board of Governors of the Federal Reserve System or any Successor Source.
- **"H.15 Daily Update"** means the daily update of H.15(519), available through the website of the Board of Governors of the Federal Reserve System or any Successor Source.
- **"ICAP SwapPX Screen"** means, when used in connection with any designated page and any floating rate, the display page so designated on the ICAP Information Services LLC SwapPX service, or any Successor Source.
- **"Index Cessation Effective Date"** means, in respect of a Relevant Benchmark and an Index Cessation Event, the first date on which the benchmark is no longer provided.
- **"Index Cessation Event"** means, in relation to a Transaction referencing a Relevant Benchmark, the occurrence of one or more of the following events: (a) a public statement or publication of information on behalf of the administrator of the Relevant

Benchmark announcing that it has ceased or will cease to provide the Relevant Benchmark permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide the Relevant Benchmark; or (b) a public statement or publication of information by the regulatory supervisor for the administrator of the Relevant Benchmark, the central bank for the currency of the Relevant Benchmark, an insolvency official with jurisdiction over the administrator for the Relevant Benchmark, a resolution authority with jurisdiction over the administrator for the Relevant Benchmark or a court or an entity with similar insolvency or resolution authority over the administrator for the Relevant Benchmark, which states that the administrator of the Relevant Benchmark has ceased or will cease to provide the Relevant Benchmark permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide the Relevant Benchmark.

- **"ISDA 2013 Discontinued Rates Maturities Protocol"** means the ISDA 2013 Discontinued Rates Maturities Protocol as published by the International Swaps and Derivatives Association, Inc. on October 11, 2013.
- **"ISDA 2020 IBOR Fallbacks Protocol"** means the ISDA 2020 IBOR Fallbacks Protocol published by ISDA on 23 October 2020.
- **"Master Agreement"** means a Swiss Master Agreement for OTC Derivative Instruments published by the Swiss Bankers Association (including (a) the 2003 version, (b) the 2013 version for use in connection with certain ISDA Definitions and (c) the 2013 non-ISDA version not for use in connection with any ISDA Definitions) entered into between the parties, irrespective of the method how such agreement is entered into between the parties (including by execution of a Confirmation pursuant to which the parties are deemed to have entered into such agreement), and including any such agreement entered into through the agency of an agent acting on behalf of either party.
- **"Publicly Available Information"** means one or both of the following: (a) information received from or published by (i) the administrator or sponsor of the Relevant Benchmark or (ii) any national, regional or other supervisory or regulatory authority which is responsible for supervising the administrator or sponsor of the Relevant Benchmark or regulating the Relevant Benchmark, provided that where any information of the type described in sub-paragraphs (i) or (ii) above is not publicly available, it can only constitute Publicly Available Information if it can be made public without violating any law, regulation, agreement, understanding or other restriction regarding the confidentiality of such information; or (b) information published in a source specified as such in the documentation of the Transaction or, if no such source is specified, in a news publisher that is commonly used in the relevant market.
- **"Relevant Benchmark"** means any benchmark used to determine a relevant payment (such as an interest rate benchmark, a benchmark used to determine the currency exchange rate or a benchmark used to determine a settlement payment).

- **"Relevant IBOR"** means (a) any of the sterling LIBOR (London interbank offered rate), the Swiss franc LIBOR (London interbank offered rate), the U.S. dollar LIBOR (London interbank offered rate), the euro LIBOR (London interbank offered rate), the euro interbank offered rate, the Japanese yen LIBOR (London interbank offered rate), the Japanese yen Tokyo interbank offered rate, the euroyen Tokyo interbank offered rate, the bank bill swap rate, the Canadian dollar offered rate, the Hong Kong interbank offered rate, the Singapore dollar swap offered rate and the Thai baht interest rate fixing; and (b) LIBOR (London interbank offered rate) with no reference to, or indication of, the currency of the relevant LIBOR (London interbank offered rate), in each case of (a) and (b), howsoever defined or described (whether in English or in any other language) in the relevant Confirmation.
- **"Reuters Screen"** or **"Thomson Reuters Screen"** each mean, when used in connection with any designated page and any floating rate, the display page so designated on the Thomson Reuters service, or any Successor Source.
- **"RFR"** means a risk free rate covered by, or pursuant to, these Supplemental Definitions.
- **"Successor Source"** means, in relation to any display page, other published source, information vendor or provider: (i) the successor display page, other published source, information vendor or provider that has been officially designated by the sponsor of the original page or source; or (ii) if the sponsor has not officially designated a successor display page, other published source, service or provider (as the case may be), the successor display page, other published source, service or provider, if any, designated by the relevant information vendor or provider (if different from the sponsor).
- **"Supplemental Definitions"** means these Supplemental Interest Rates, Risk Free Rates (RFR) and EONIA Definitions.
- **"Swap Marker Screen"** means, when used in connection with any designated page and any floating rate, the display page so designated on the Tullett Prebon Information SwapMarker service, or any Successor Source
- **"TARGET Settlement Day"** means any day on which the TARGET system is open.
- **"Transaction"** means any transaction entered into between the parties hereto that forms part of a Master Agreement.

## Part B: Fallbacks

### 1. Relevant IBOR

(a) If a Confirmation includes:

- (A) a reference to a Relevant IBOR by incorporating a Covered ISDA Definitions Booklet;
- (B) a reference to a Relevant IBOR "as defined" in, or otherwise provides that the Relevant IBOR has the meaning given in, a Covered ISDA Definitions Booklet (regardless of whether such Covered ISDA Definitions Booklet is incorporated in full in that Confirmation); or

(C) a reference to a Relevant IBOR (howsoever defined or described);  
the terms specified in, or applicable pursuant to, the relevant sections of the Attachment to the ISDA 2020 IBOR Fallbacks Protocol, as published by ISDA, shall apply to each such Transaction.

(b) For these purposes, (i) references in the Attachment to the ISDA 2020 IBOR Fallbacks Protocol to a "Protocol Covered Document" or a "Protocol Covered Confirmation" will be deemed to constitute references to each such Confirmation falling under (a) above and (ii) references in the Attachment to the ISDA 2020 IBOR Fallbacks Protocol to the "IBOR Fallbacks Supplement" will be deemed to have the meaning as defined in the ISDA 2020 IBOR Fallbacks Protocol.

## **2. Other Index Cessation Event or Administrator/Benchmark Event**

(a) Upon the occurrence of (i) an Index Cessation Effective Date in respect of an Affected Benchmark other than a Relevant IBOR or (ii) an Administrator/Benchmark Event Date, the Affected Benchmark shall be replaced:

(A) by an alternative benchmark nominated by the parties; or

(B) if there is no such nomination pursuant to (A) above, by a benchmark designated, nominated or recommended by a competent nominating body or the administrator or sponsor of the Affected Benchmark; or

(C) if there is no such nomination pursuant to (A) or (B) above within a time period as determined by the Calculation Agent and notified to the other party, by a benchmark determined by the Calculation Agent, provided that such benchmark shall be a commercially reasonable alternative for the Affected Benchmark.

(b) The parties shall determine the relevant adjustment payment or adjustment spread, as applicable, that is required in order to reduce or eliminate, to the extent reasonably practicable, any transfer of economic value from one party to the other that would otherwise arise as a result of the replacement of the Affected Benchmark. In the absence of an agreement by the parties, such determination shall be made by the Calculation Agent.

## **Part C: RFRs**

Any calculations on the basis of RFRs shall be made as set out in this Part C. Any payments owed under Credit Support Documents shall not be affected by this Part C, unless agreed otherwise between the parties.

### **1. SARON**

(a) Any references to SARON shall be deemed to be a reference to "CHF-SARON-OIS-COMPOUND", calculated in accordance with the formula set forth below on the basis of daily compounding (it being understood that the reference rate for the calculation of interest is the Swiss Franc Repo daily overnight reference rate), provided that the resulting percentage will be rounded, if necessary, in accordance with the method set forth in Part A, (3)(i) of these Supplemental Definitions, but to the nearest one ten-thousandth of a percentage point (0.0001%):



$$\left[ \prod_{i=1}^{d_0} \left( 1 + \frac{SARON_i \times n_i}{360} \right) - 1 \right] \times \frac{360}{d}$$

(b) For these purposes:

"d<sub>0</sub>", for any Calculation Period, is the number of Zurich Banking Days in the relevant Calculation Period;

"i" is a series of whole numbers from one to d<sub>0</sub>, each representing the relevant Zurich Banking Days in chronological order from, and including, the first Zurich Banking Day in the relevant Calculation Period;

"SARON<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to the rate for overnight repo transactions in Swiss Francs which appears on the Thomson Reuters Screen SARON.S under the heading 'CLSFIX' at or after 6:00 p.m., Zurich time, in respect of that day or, if such rate does not appear on the Thomson Reuters Screen SARON.S by 8 p.m. on such day, the rate for that day will be determined by the Calculation Agent;

"n<sub>i</sub>" is the number of calendar days in the relevant Calculation Period on which the rate is SARON<sub>i</sub>; and

"d" is the number of calendar days in the relevant Calculation Period.

## 2. SONIA

(a) Any references to SONIA shall be deemed to be a reference to "GBP-SONIA-COMPOUND", calculated in accordance with the formula set forth below on the basis of daily compounding (it being understood that the reference rate for the calculation of interest is the Sterling daily overnight reference rate), provided that the resulting percentage will be rounded, if necessary, in accordance with the method set forth in Part A, (3)(i) of these Supplemental Definitions, but to the nearest one ten-thousandth of a percentage point (0.0001%):

$$\left[ \prod_{i=1}^{d_0} \left( 1 + \frac{SONIA_i \times n_i}{365} \right) - 1 \right] \times \frac{365}{d}$$

(b) For these purposes:

"d<sub>0</sub>", for any Calculation Period, is the number of London Banking Days in the relevant Calculation Period;

"i" is a series of whole numbers from one to d<sub>0</sub>, each representing the relevant London Banking Days in chronological order from, and including, the first London Banking Day in the relevant Calculation Period;

"SONIA<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to the daily Sterling Overnight Index Average (SONIA) rate as provided by the administrator of SONIA to, and published by, authorized distributors of the rate as of 9:00 a.m., London time, on the London

Banking Day immediately following that day "i";

"n<sub>i</sub>" is the number of calendar days in the relevant Calculation Period on which the rate is SONIA<sub>i</sub>; and

"d" is the number of calendar days in the relevant Calculation Period.

### 3. SOFR

- (a) Any references to SOFR shall be deemed to be a reference to "USD-SOFR-COMPOUND", the rate calculated in accordance with the formula set forth below as the rate of return of a daily compound interest investment (it being understood that the reference rate for the calculation of interest is SOFR). Upon the occurrence of a SOFR Index Cessation Event, the rate for each day in a Calculation Period occurring on or after the SOFR Index Cessation Effective Date will be determined as if references to SOFR were references to the rate (inclusive of any spreads or adjustments) recommended as the replacement for SOFR by the Federal Reserve Board and/or the Federal Reserve Bank of New York, or by a committee officially endorsed or convened by the Federal Reserve Board and/or the Federal Reserve Bank of New York for the purpose of recommending a replacement for SOFR (which rate may be produced by the Federal Reserve Bank of New York or another administrator). If no such rate is recommended within one U.S. Government Securities Business Day of the SOFR Index Cessation Event, then the rate for each day in a Calculation Period occurring on or after the SOFR Index Cessation Effective Date will be determined as if references to SOFR were references to OBFR, references to U.S. Government Securities Business Day were references to New York City Banking Day and references to SOFR Index Cessation Event were references to OBFR Index Cessation Event. If no such rate is recommended within one U.S. Government Securities Business Day of the SOFR Index Cessation Event and an OBFR Index Cessation Event has occurred, then the rate for each day in a Calculation Period occurring on or after the SOFR Index Cessation Effective Date will be determined as if references to SOFR were references to FOMC Target Rate, references to U.S. Government Securities Business Day were references to New York City Banking Day and references to the New York Fed's website were references to the Federal Reserve's website.

"USD-SOFR-COMPOUND" will be calculated as follows, and the resulting percentage will be rounded, if necessary, in accordance with the method set forth in Part A, (3)(i) of these Supplemental Definitions:

$$\left[ \prod_{i=1}^{d_0} \left( 1 + \frac{\text{SOFR}_i \times n_i}{360} \right) - 1 \right] \times \frac{360}{d}$$

- (b) For these purposes:

"d<sub>0</sub>", for any Calculation Period, is the number of U.S. Government Securities business days in the relevant Calculation Period;

"i" is a series of whole numbers from one to d<sub>0</sub>, each representing the relevant U.S. Government Securities business days in chronological order from, and including, the first U.S. Government Securities business day in the relevant Calculation Period;

"SOFR" is the daily Secured Overnight Financing Rate provided by the Federal Reserve Bank of New York, as the administrator of the benchmark, (or a successor administrator) on the New York Fed's website;

"SOFR<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to SOFR in respect of that day as published on or about 8:00 a.m., New York City time, on the U.S. Government Securities business day immediately following that day "i". If, by 5:00 p.m., New York City time, on the U.S. Government Securities business day immediately following any day "i", SOFR in respect of such day "i" has not been published and an Index Cessation Event has not occurred, then SOFR<sub>i</sub> for that day "i" will be SOFR as published in respect of the first preceding U.S. Government Securities business day for which SOFR was published on the New York Fed's website;

"n<sub>i</sub>" is the number of calendar days in the relevant Calculation Period on which the rate is SOFR<sub>i</sub>;

"d" is the number of calendar days in the relevant Calculation Period;

"SOFR Index Cessation Event" means the occurrence of one or more of the following events:

- (a) a public statement by the Federal Reserve Bank of New York (or a successor administrator of SOFR) announcing that it has ceased or will cease to provide SOFR permanently or indefinitely, provided that, at that time, there is no successor administrator that will continue to provide SOFR;
- (b) the publication of information which reasonably confirms that the Federal Reserve Bank of New York (or a successor administrator of SOFR) has ceased or will cease to provide SOFR permanently or indefinitely, provided that, at that time, there is no successor administrator that will continue to provide SOFR; or
- (c) a public statement by a regulator or other official sector entity prohibiting the use of SOFR that applies to, but need not be limited to, all Swap Transactions, including existing Swap Transactions;

"SOFR Index Cessation Effective Date" means, in respect of a SOFR Index Cessation Event, the date on which the Federal Reserve Bank of New York (or a successor administrator of SOFR) ceases to publish SOFR or the date as of which SOFR may no longer be used;

"OBFR" is the daily Overnight Bank Funding Rate as provided by the Federal Reserve Bank of New York, as the administrator of the benchmark, (or a successor administrator) on the New York Fed's website;

"OBFR Index Cessation Event" means the occurrence of one or more of the following events:

- (a) a public statement by the Federal Reserve Bank of New York (or a successor administrator of OBFR) announcing that it has ceased or will cease to provide OBFR permanently or indefinitely, provided that, at that time, there is no successor administrator that will continue to provide OBFR;
- (b) the publication of information which reasonably confirms that the Federal Reserve Bank of New York (or a successor administrator of OBFR) has ceased or will cease to

provide OBFR permanently or indefinitely, provided that, at that time, there is no successor administrator that will continue to provide OBFR; or

- (c) a public statement by a regulator or other official sector entity prohibiting the use of OBFR that applies to, but need not be limited to, all Swap Transactions, including existing Swap Transactions; and

"FOMC Target Rate" is the short-term interest rate target set by the Federal Open Market Committee and published on the Federal Reserve's website or, if the Federal Open Market Committee does not target a single rate, the mid-point of the short-term interest rate target range set by the Federal Open Market Committee and published on the Federal Reserve's website (calculated as the arithmetic average of the upper bound of the target range and the lower bound of the target range, rounded, if necessary, in accordance with the method set forth in Part A (3)(iii) of these Supplemental Definitions).

#### 4. €STR

- (a) Any references to €STR or EuroSTR shall be deemed to be a reference to "EUR-EuroSTR-COMPOUND", calculated in accordance with the formula set forth below on the basis of daily compounding (it being understood that the reference rate for the calculation of interest is the euro short term rate (€STR)), provided that the resulting percentage will be rounded, if necessary, in accordance with the method set forth in Part A, (3)(i) of these Supplemental Definitions, but to the nearest one ten-thousandth of a percentage point (0.0001%):

$$\left[ \prod_{i=1}^{d_0} \left( 1 + \frac{\text{EuroSTR}_i \times n_i}{360} \right) - 1 \right] \times \frac{360}{d}$$

- (b) Upon the occurrence of a EuroSTR Index Cessation Event, the rate for each day in a Calculation Period occurring on or after the EuroSTR Index Cessation Effective Date will be determined as if references to EuroSTR<sub>i</sub> were references to the ECB Recommended Rate<sub>i</sub>  
If:

- (1) no such rate is recommended before the end of the first TARGET Settlement Day following the day on which the EuroSTR Index Cessation Event occurs, then the rate for each day in a Calculation Period occurring on or after the EuroSTR Index Cessation Effective Date will be determined as if references to EuroSTR<sub>i</sub> were references to Modified EDFR (EuroSTR)<sub>i</sub>; or
- (2) an ECB Recommended Rate Index Cessation Event subsequently occurs, then the rate for each day in a Calculation Period occurring on or after the ECB Recommended Rate Index Cessation Effective Date will be determined as if references to EuroSTR<sub>i</sub> were references to Modified EDFR (EuroSTR)<sub>i</sub>.

- (c) For these purposes:

"d<sub>0</sub>", for any Calculation Period, is the number of TARGET Settlement Days in the relevant Calculation Period;

"i" is a series of whole numbers from one to d<sub>0</sub>, each representing the relevant TARGET Settlement Day in chronological order from, and including, the first TARGET Settlement Day in the relevant Calculation Period;

"EuroSTR<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to EuroSTR in respect of that day as published on the ECB's website;

"EuroSTR" is the euro short term rate (€STR) provided by the European Central Bank as administrator of the benchmark (or a successor administrator) on the ECB's website;

"n<sub>i</sub>" is the number of calendar days in the relevant Calculation Period on which the rate is EuroSTR<sub>i</sub>;

"d" is the number of calendar days in the relevant Calculation Period;

"EuroSTR Index Cessation Event" means the occurrence of one or more of the following events:

- (a) a public statement or publication of information by or on behalf of the European Central Bank (or a successor administrator of EuroSTR) announcing that it has ceased or will cease to provide EuroSTR permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide EuroSTR; or
- (b) a public statement or publication of information by the regulatory supervisor for the administrator of EuroSTR, the central bank for the currency of EuroSTR, an insolvency official with jurisdiction over the administrator of EuroSTR, a resolution authority with jurisdiction over the administrator of EuroSTR or a court or an entity with similar insolvency or resolution authority over the administrator of EuroSTR, which states that the administrator of EuroSTR has ceased or will cease to provide EuroSTR permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide EuroSTR;

"EuroSTR Index Cessation Effective Date" means, in respect of a EuroSTR Index Cessation Event, the first date on which EuroSTR is no longer provided;

"ECB Recommended Rate<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to the ECB Recommended Rate in respect of that day, as published or provided by the administrator thereof;

"ECB Recommended Rate" means the rate (inclusive of any spreads or adjustments) recommended as the replacement for EuroSTR by the European Central Bank (or any successor administrator of EuroSTR) and/or by a committee officially endorsed or convened by the European Central Bank (or any successor administrator of EuroSTR) for the purpose of recommending a replacement for EuroSTR (which rate may be produced by the European Central Bank or another administrator);

"ECB Recommended Rate Index Cessation Event" means the occurrence of one or more of the following events:

- (a) a public statement or publication of information by or on behalf of the administrator of the ECB Recommended Rate announcing that it has ceased or will cease to provide the ECB Recommended Rate permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide the ECB Recommended Rate; or
- (b) a public statement or publication of information by the regulatory supervisor for the administrator of the ECB Recommended Rate, the central bank for the currency of

the ECB Recommended Rate, an insolvency official with jurisdiction over the administrator of the ECB Recommended Rate, a resolution authority with jurisdiction over the administrator of the ECB Recommended Rate or a court or an entity with similar insolvency or resolution authority over the administrator of the ECB Recommended Rate, which states that the administrator of the ECB Recommended Rate has ceased or will cease to provide the ECB Recommended Rate permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide the ECB Recommended Rate;

"ECB Recommended Rate Index Cessation Effective Date" means, in respect of an ECB Recommended Rate Index Cessation Event, the first date on which the ECB Recommended Rate is no longer provided;

"Modified EDFR (EuroSTR)<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to the Eurosystem Deposit Facility Rate in respect of that day plus the EDFR Spread;

"Eurosystem Deposit Facility Rate" means the rate on the deposit facility, which banks may use to make overnight deposits with the Eurosystem and which is published on the ECB's website; and

"EDFR Spread" means:

- (a) if no ECB Recommended Rate is recommended before the end of the first TARGET Settlement Day following the day on which the EuroSTR Index Cessation Event occurs, the arithmetic mean of the daily difference between EuroSTR and the Eurosystem Deposit Facility Rate over an observation period of 30 TARGET Settlement Days starting 30 TARGET Settlement Days prior to the day on which the EuroSTR Index Cessation Event occurs and ending on the TARGET Settlement Day immediately preceding the day on which the EuroSTR Index Cessation Event occurs; or
- (b) if an ECB Recommended Rate Index Cessation Event occurs, the arithmetic mean of the daily difference between the ECB Recommended Rate and the Eurosystem Deposit Facility Rate over an observation period of 30 TARGET Settlement Days starting 30 TARGET Settlement Days prior to the day on which the ECB Recommended Rate Index Cessation Event occurs and ending on the TARGET Settlement Day immediately preceding the day on which the ECB Recommended Rate Index Cessation Event occurs.

## 5. TONA

- (a) Any references to TONA shall be deemed to be a reference to "JPY-TONA-OIS-COMPOUND", calculated in accordance with the formula set forth below on the basis of daily compounding (it being understood that the reference rate for the calculation of interest is the arithmetic mean of the daily rates of the day-to-day interbank JPY market in Tokyo), provided that the resulting percentage will be rounded, if necessary, in accordance with the method set forth in Part A, (3)(i) of these Supplemental Definitions:

$$\left[ \prod_{i=1}^{d0} \left( 1 + \frac{TONAi \times ni}{365} \right) - 1 \right] \times \frac{365}{d}$$

- (b) For these purposes:

"d<sub>0</sub>", for any Calculation Period, is the number of Tokyo Banking Days in the relevant Calculation Period;

"i" is a series of whole numbers from one to d<sub>0</sub>, each representing the relevant Tokyo Banking Day in chronological order from, and including, the first Tokyo Banking Day in the relevant Calculation Period;

"TONA<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to the Tokyo OverNight Average rate (TONA) as published by the Bank of Japan on the Reuters Screen TONAT Page as of approximately 10:00 a.m., Tokyo time, on the Tokyo Banking Day next following that day "i". If such rate does not appear on the Reuters Screen TONAT Page in respect of any day "i", the rate for that day will be as agreed between the parties, acting in good faith and in a commercially reasonable manner. If the parties cannot agree, the rate for that day will be the rate displayed on the Reuters Screen TONAT Page in respect of the first preceding Tokyo Banking Day;

"n<sub>i</sub>" is the number of calendar days in the relevant Calculation Period on which the rate is TONA<sub>i</sub>; and

"d" is the number of calendar days in the relevant Calculation Period.

## 6. SORA

- (a) Any references to SORA shall be deemed to be a reference to "SGD-SORA- COMPOUND", calculated in accordance with the formula set forth below on the basis of daily compounding (it being understood that the reference rate for the calculation of interest is SORA), provided that the resulting percentage will be rounded, if necessary, in accordance with the method set forth in Part A, (3)(i) of these Supplemental Definitions, but to the nearest one ten-thousandth of a percentage point (0.0001%):

$$\left[ \prod_{i=1}^{d_0} \left( 1 + \frac{SORA_i \times n_i}{365} \right) - 1 \right] \times \frac{365}{d}$$

- (b) Upon the occurrence of a SORA Index Cessation Event, the rate for each day in a Calculation Period occurring on or after the SORA Index Cessation Effective Date will be determined as if references to SORA<sub>i</sub> were references to the Monetary Authority of Singapore's Recommended Rate<sub>i</sub>.
- (c) For these purposes:

"d<sub>0</sub>", for any Calculation Period, is the number of Singapore Banking Days in the relevant Calculation Period;

"i" is a series of whole numbers from one to d<sub>0</sub>, each representing the relevant Singapore Banking Days in chronological order from, and including, the first Singapore Banking Day in the relevant Calculation Period;

"SORA" is the daily Singapore Overnight Rate Average provided by the Monetary Authority of Singapore as administrator of the benchmark (or a successor administrator) on the Monetary Authority of Singapore's website (or as published by its authorized distributors);

"SORA<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to SORA in respect of that day as published on the Monetary Authority of Singapore's website (or as published by its authorized distributors). If, by 5:00 p.m., Singapore time, on the Singapore Banking Day immediately following any day "i", SORA in respect of such day "i" has not been published and a SORA Index Cessation Effective Date has not occurred, then SORA<sub>i</sub> for that day "i" will be SORA as published in respect of the first preceding Singapore Banking Day for which SORA was published on the Monetary Authority of Singapore's website (or as published by its authorized distributors);

"SORA Index Cessation Event" means the occurrence of one or more of the following events:

- (a) a public statement or publication of information by or on behalf of the Monetary Authority of Singapore (or a successor administrator of SORA) announcing that it has ceased or will cease to provide SORA permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide SORA; or
- (b) a public statement or publication of information by the regulatory supervisor for the administrator of SORA, the central bank for the currency of SORA, an insolvency official with jurisdiction over the administrator of SORA, a resolution authority with jurisdiction over the administrator of SORA or a court or an entity with similar insolvency or resolution authority over the administrator of SORA, which states that the administrator of SORA has ceased or will cease to provide SORA permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide SORA;

"SORA Index Cessation Effective Date" means, in respect of a SORA Index Cessation Event, the first date on which SORA is no longer provided;

"n<sub>i</sub>" is the number of calendar days in the relevant Calculation Period on which the rate is SORA<sub>i</sub>;

"d" is the number of calendar days in the relevant Calculation Period;

"Monetary Authority of Singapore's Recommended Rate", for any day "i" in the relevant Calculation Period, is a reference rate equal to the Monetary Authority of Singapore's Recommended Rate in respect of that day, as published or provided by the administrator thereof; and

"Monetary Authority of Singapore's Recommended Rate" means the rate (inclusive of any spreads or adjustments) recommended as the replacement for SORA by the Monetary Authority of Singapore (or any successor administrator of SORA) and/or by a committee officially endorsed or convened by the Monetary Authority of Singapore (or any successor administrator of SORA) for the purpose of recommending a replacement for SORA (which rate may be produced by the Monetary Authority of Singapore or another administrator).

## 7. THOR

- (a) Any references to THOR shall be deemed to be a reference to "THB-THOR-COMPOUND", calculated in accordance with the formula set forth below on the basis of daily compounding (it being understood that the reference rate for the calculation of interest is THOR), provided that the resulting percentage will be rounded, if necessary, in accordance with the method set forth in Part A, (3)(i) of these Supplemental Definitions:



$$\left[ \prod_{i=1}^{d_0} \left( 1 + \frac{\text{THOR}_i \times n_i}{365} \right) - 1 \right] \times \frac{365}{d}$$

(b) Upon the occurrence of a THOR Index Cessation Event, the rate for each day in a Calculation Period occurring on or after the THOR Index Cessation Effective Date will be determined as if references to  $\text{THOR}_i$  were references to the Bank of Thailand's Recommended Rate<sub>i</sub>.

(c) For these purposes:

"d<sub>0</sub>", for any Calculation Period, is the number of Bangkok Banking Days in the relevant Calculation Period;

"i" is a series of whole numbers from one to d<sub>0</sub>, each representing the relevant Bangkok Banking Days in chronological order from, and including, the first Bangkok Banking Day in the relevant Calculation Period;

"THOR" is the Thai Overnight Repurchase Rate provided by the Bank of Thailand as administrator of the benchmark (or a successor administrator) on the Bank of Thailand's website (or as published by its authorized distributors);

"THOR<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to THOR in respect of that day as published on the Bank of Thailand's website (or as published by its authorized distributors) on or about 5:00 p.m., Bangkok time (or as specified by the administrator) on day "i". If, by 9:30 a.m., Bangkok time, on the Bangkok Banking Day immediately following any day "i", THOR in respect of such day "i" has not been published and a THOR Index Cessation Effective Date has not occurred, then THOR<sub>i</sub> for that day "i" will be THOR as published in respect of the first preceding Bangkok Banking Day for which THOR was published on the Bank of Thailand's website (or as published by its authorized distributors);

"THOR Index Cessation Event" means the occurrence of one or more of the following events:

- (a) a public statement or publication of information by or on behalf of the Bank of Thailand (or a successor administrator of THOR) announcing that it has ceased or will cease to provide THOR permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide THOR; or
- (b) a public statement or publication of information by the regulatory supervisor for the administrator of THOR or the central bank for the currency of THOR stating that the administrator of THOR has ceased or will cease to provide THOR permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide THOR; or
- (c) a public statement by the central bank for the currency of THOR prohibiting the use of THOR that applies to, but need not be limited to, all Swap Transactions, including existing Swap Transactions;

"THOR Index Cessation Effective Date" means, in respect of a THOR Index Cessation Event, the first date on which the Bank of Thailand (or a successor administrator of THOR) ceases to publish THOR or the first date as of which THOR may no longer be used;

"n<sub>i</sub>" is the number of calendar days in the relevant Calculation Period on which the rate is THOR<sub>i</sub>;

"d" is the number of calendar days in the relevant Calculation Period;

"Bank of Thailand's Recommended Rate<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to the Bank of Thailand's Recommended Rate in respect of that day, as published or provided by the administrator thereof; and

"Bank of Thailand's Recommended Rate" means the rate (inclusive of any spreads or adjustments) recommended as the replacement for THOR by the Bank of Thailand (or any successor administrator of THOR) and/or by a committee officially endorsed or convened by the Bank of Thailand (or any successor administrator of THOR) for the purpose of recommending a replacement for THOR (which rate may be produced by the Bank of Thailand or another administrator).

## 8. AONIA

- (a) Any references to AONIA shall be deemed to be a reference to "AUD-AONIA-OIS-COMPOUND", calculated in accordance with the formula set forth below on the basis of daily compounding (it being understood that the reference rate for the calculation of interest is the Australian Dollar interbank overnight cash rate as determined below), provided that the resulting percentage will be rounded, if necessary, in accordance with the method set forth in Part A, (3)(i) of these Supplemental Definitions, but to the nearest one ten-thousandth of a percentage point (0.0001%):

$$\left[ \prod_{i=1}^{d_0} \left( 1 + \frac{\text{AONIA}_i \times n_i}{365} \right) - 1 \right] \times \frac{365}{d}$$

- (b) For these purposes:

"d<sub>0</sub>" for any Calculation Period is the number of Sydney Banking Days in the relevant Calculation Period;

"i" is a series of whole numbers from one to d<sub>0</sub>, each representing the relevant Sydney Banking Days in chronological order from, and including, the first Sydney Banking Day in the relevant Calculation Period;

"AONIA<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to the interbank overnight cash rate in respect of that day calculated by the Reserve Bank of Australia, as such rate is displayed on the Reuters Screen RBA30 Page. If such rate does not appear on the Reuters Screen RBA30 Page in respect of any day "i", the rate for that day will be as agreed between the parties, acting in good faith and in a commercially reasonable manner. If the parties cannot agree, the rate for that day will be the rate displayed on the Reuters Screen RBA30 Page in respect of the first preceding Sydney Banking Day;

"n<sub>i</sub>" is 1, except where the Sydney Banking Day is the day immediately preceding a day which is not a Sydney Banking Day, in which case it is the number of calendar days from,

and including, that Sydney Banking Day to, but excluding, the next Sydney Banking Day;  
and

"d" is the number of calendar days in the relevant Calculation Period.

## 9. CORRA

- (a) Any references to CORRA shall be deemed to be a reference to "CAD-CORRA-OIS-COM-POUND", calculated in accordance with the formula set forth below on the basis of daily compounding (it being understood that the reference rate for the calculation of interest is the daily Canadian Dollar overnight repurchase rates determined by the Bank of Canada as the weighted average of non-specific collateral traded through brokers), provided that the resulting percentage will be rounded, if necessary, in accordance with the method set forth in Part A, (3)(i) of these Supplemental Definitions:

$$\left[ \prod_{i=1}^{d_0} \left( 1 + \frac{\text{CORRA}_i \times n_i}{365} \right) - 1 \right] \times \frac{365}{d}$$

- (b) For these purposes:

"d<sub>0</sub>" for any Calculation Period is the number of Toronto Banking Days in the relevant Calculation Period;

"i" is a series of whole numbers from one to d<sub>0</sub>, each representing the relevant Toronto Banking Day in chronological order from, and including, the first Toronto Banking Day in the relevant Calculation Period;

"CORRA<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to the daily fixing for Canadian Dollar overnight repurchase rate as published at approximately 9:00 a.m., Toronto time, on the day that is one Toronto Banking Day following that day "i" on the Bank of Canada's website. If such rate does not appear on such website page in respect of the day "i", the rate for that day will be as agreed between the parties, acting in good faith and in a commercially reasonable manner. If the parties cannot agree, the rate for that day will be the rate displayed on the Bank of Canada's website in respect of the first preceding Toronto Banking Day;

"n<sub>i</sub>" is the number of calendar days in the relevant Calculation Period on which the rate is CORRA<sub>i</sub>; and

"d" is the number of calendar days in the relevant Calculation Period.

## 10. DKKOIS

- (a) Any references to DKKOIS shall be deemed to be a reference to "DKK-DKKOIS-OIS-COM-POUND", calculated in accordance with the formula set forth below on the basis of daily compounding (it being understood that the reference rate for the calculation of interest is the arithmetic mean of the daily rates of the day-to-day interbank DKK market in Copenhagen), provided that the resulting percentage will be rounded, if necessary, in accordance with the method set forth in Part A, (3)(i) of these Supplemental Definitions:

$$\left[ \prod_{i=1}^{d_0} \left( 1 + \frac{\text{DKKOIS}_i \times n_i}{360} \right) - 1 \right] \times \frac{360}{d}$$

(b) For these purposes:

"d<sub>0</sub>" for any Calculation Period is the number of Copenhagen Banking Days in the relevant Calculation Period;

"i" is a series of whole numbers from one to d<sub>0</sub>, each representing the relevant Copenhagen Banking Day in chronological order from, and including, the first Copenhagen Banking Day in the relevant Calculation Period;

"DKKOIS<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to the daily fixing for Danish Kroner tomorrow next deposits as published at approximately 11:00 a.m., Copenhagen time, on the day that is one Copenhagen Banking Day preceding that day "i" on the Reuters Screen DKNA14 Page, under the heading "T/N Rente". If such rate does not appear on the Reuters Screen DKNA14 Page in respect of any day "i", the rate for that day will be as agreed between the parties, acting in good faith and in a commercially reasonable manner. If the parties cannot agree, the rate for that day will be the rate displayed on the Reuters Screen DKNA14 Page in respect of the first preceding Copenhagen Banking Day;

"n<sub>i</sub>" is the number of calendar days in the relevant Calculation Period on which the rate is DKKOIS<sub>i</sub>; and

"d" is the number of calendar days in the relevant Calculation Period.

## 11. HONIX

(a) Any references to HONIX shall be deemed to be a reference to "HKD-HONIX-OIS-COMPOUND", calculated in accordance with the formula set forth below on the basis of daily compounding (it being understood that the reference rate for the calculation of interest is the arithmetic mean of the daily rates of the day-to-day interbank HKD money market in Hong Kong as determined below), provided that the resulting percentage will be rounded, if necessary, in accordance with Part A, (3)(i) of these Supplemental Definitions:

$$\left[ \prod_{i=1}^{d_0} \left( 1 + \frac{\text{HONIX}_i \times n_i}{365} \right) - 1 \right] \frac{365}{d}$$

(b) For these purposes:

"d<sub>0</sub>" for any Calculation Period is the number of Hong Kong Banking Days in the relevant Calculation Period;

"i" is a series of whole numbers from one to d<sub>0</sub>, each representing the relevant Hong Kong Banking Days in chronological order from, and including, the first Hong Kong Banking Day in the relevant Calculation Period;

"HONIX<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to the overnight rate as calculated by the Hong Kong Brokers' Association and appearing on the

Reuters Screen HONIX Page as at 5:30 p.m., Hong Kong time, in respect of that day. If such rate does not appear on the Reuters Screen HONIX Page in respect of any day “i”, the rate for that day will be as agreed between the parties, acting in good faith and in a commercially reasonable manner. If the parties cannot agree, the rate for that day will be the rate displayed on the Reuters Screen HONIX Page in respect of the first preceding Hong Kong Banking Day;

“n<sub>i</sub>” is 1, except where the Hong Kong Banking Day is the day immediately preceding a day which is not a Hong Kong Banking Day, in which case it is the number of calendar days from, and including, that Hong Kong Banking Day to, but excluding, the next Hong Kong Banking Day; and

“d” is the number of calendar days in the relevant Calculation Period.

## 12. NZIONA

- (a) Any references to NZIONA shall be deemed to be a reference to “NZD-NZIONA-OIS-COMPOUND”, calculated in accordance with the formula set forth below on the basis of daily compounding (it being understood that the reference rate for the calculation of interest is the New Zealand Dollar official cash rate as determined below), provided that the resulting percentage will be rounded, if necessary, in accordance with the method set forth in Part A, (3)(i) of these Supplemental Definitions, but to the nearest one ten-thousandth of a percentage point (0.0001%):

$$\left[ \prod_{i=1}^{d_0} \left( 1 + \frac{NZIONA_i \times n_i}{365} \right) - 1 \right] \frac{365}{d}$$

- (b) For these purposes:

“d<sub>0</sub>” for any Calculation Period, is the number of ESAS Settlement Days in the relevant Calculation Period;

“i” is a series of whole numbers from one to d<sub>0</sub>, each representing the relevant ESAS Settlement Days in chronological order from, and including, the first ESAS Settlement Day in the relevant Calculation Period;

“NZIONA<sub>i</sub>”, for any day “i” in the relevant Calculation Period, is a reference rate equal to the official cash rate in respect of that day set by the Reserve Bank of New Zealand, as such rate is displayed on the Reuters Screen RBNZ02 Page as of 10:00 a.m., Wellington time, on day “i”. If such rate does not appear on the Reuters Screen RBNZ02 Page in respect of any day “i”, the rate for that day will be as agreed between the parties, acting in good faith and in a commercially reasonable manner. If the parties cannot agree, the rate for that day will be the rate displayed on the Reuters Screen RBNZ02 Page in respect of the first preceding ESAS Settlement Day;

“n<sub>i</sub>” is one, except where the ESAS Settlement Day is the day immediately preceding a day which is not an ESAS Settlement Day, in which case it is the number of calendar days from, and including, that ESAS Settlement Day to, but excluding, the next ESAS Settlement Day;

“ESAS Settlement Day” is a day on which the Reserve Bank of New Zealand’s Exchange Settlement Account System is open; and

"d" is the number of calendar days in the relevant Calculation Period.

### 13. SIOR

- (a) Any references to SIOR shall be deemed to be a reference to "SEK-SIOR-OIS-COM-POUND" calculated in accordance with the formula set forth below on the basis of daily compounding, (it being understood that the reference rate for the calculation of interest is the arithmetic mean of the daily rates of the day-to-day interbank SEK market in Stockholm), provided that the resulting percentage will be rounded, if necessary, in accordance with the method set forth in Part A, (3)(i) of these Supplemental Definitions:

$$\left[ \prod_{i=1}^{d_0} \left( 1 + \frac{SIOR_i \times n_i}{360} \right) - 1 \right] \times \frac{360}{d}$$

- (b) For these purposes:

"d<sub>0</sub>" for any Calculation Period, is the number of Stockholm Banking Days in the relevant Calculation Period;

"i" is a series of whole numbers from one to d<sub>0</sub>, each representing the relevant Stockholm Banking Day in chronological order from, and including, the first Stockholm Banking Day in the relevant Calculation Period;

"SIOR<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to the daily fixing for Swedish Krona tomorrow next deposits as published at approximately 11:00 a.m., Stockholm time, on the day that is one Stockholm Banking Day preceding that day "i" on the Reuters Screen SIDE Page under the heading "Fixing". If such rate does not appear on the Reuters Screen SIDE Page in respect of any day "i", the rate for that day will be as agreed between the parties, acting in good faith and in a commercially reasonable manner. If the parties cannot agree, the rate for that day will be the rate displayed on the Reuters Screen SIDE Page in respect of the first preceding Stockholm Banking Day;

"n<sub>i</sub>" is the number of calendar days in the relevant Calculation Period on which the rate is SIOR<sub>i</sub>; and

"d" is the number of calendar days in the relevant Calculation Period.

### 14. TLREF

- (a) Any references to TLREF shall be deemed to be a reference to "TRY-TLREF-OIS-COM-POUND" calculated in accordance with the formula set forth below on the basis of daily compounding (it being understood that the reference rate for the calculation of interest is the arithmetic mean of the daily rates of the Turkish Lira Overnight Reference Rate), provided that the resulting percentage will be rounded, if necessary, in accordance with the method set forth in Part A, (3)(i) of these Supplemental Definitions, but to the nearest one ten-thousandth of a percentage point (0.0001%):

$$\left[ \prod_{i=1}^{d_0} \left( 1 + \frac{TLREF_i \times n_i}{365} \right) - 1 \right] \times \frac{365}{d}$$

(b) For these purposes:

"d<sub>0</sub>" for any Calculation Period, is the number of Istanbul Banking Days in the relevant Calculation Period;

"i" is a series of whole numbers from one to d<sub>0</sub>, each representing the relevant Istanbul Business Day in chronological order from, and including, the first Istanbul Business Day in the relevant Calculation Period;

"TLREF<sub>i</sub>", for any day "i" in the relevant Calculation Period, is the reference rate equal to the Turkish Lira Overnight Reference Rate published on the Borsa Istanbul website at approximately 4:00 p.m., Istanbul time, in respect of that day. If such rate does not appear on the Borsa Istanbul website in respect of any day "i", the rate for that day will be agreed between the parties, acting in good faith and in a commercially reasonable manner. If the parties cannot agree a rate within one Istanbul Business Day of day "i", the rate for that day will be the rate displayed on the Borsa Istanbul website in respect of the first preceding Istanbul Banking Day;

"n<sub>i</sub>" is the number of calendar days in the relevant Calculation Period on which the rate is TLREF<sub>i</sub>; and

"d" is the number of calendar days in the relevant Calculation Period.

## Part D: EONIA

### 1. EONIA Compound Rates

(a) Any references to a compounded EONIA rate shall be deemed to be a reference to "EUR-EONIA-OIS-COMPOUND" or, if determined by reference to a Bloomberg page, "EUR-EONIA-OIS-COMPOUND-Bloomberg", calculated in accordance with the formula set forth below on the basis of daily compounding (it being understood that the reference rate for the calculation of interest is the Euro Overnight Index Average (EONIA)), provided that the resulting percentage will be rounded, if necessary, in accordance with the method set forth in Part A, (3)(i) of these Supplemental Definitions, but to the nearest one ten-thousandth of a percentage point (0.0001%) and provided further that the rate for each day in a Calculation Period occurring on or after an EONIA Index Cessation Effective Date will be determined as if references to EONIA<sub>i</sub> were references to Modified EuroSTR<sub>i</sub>.

$$\left[ \prod_{i=1}^{d_0} \left( 1 + \frac{\text{EONIA}_i \times n_i}{360} \right) - 1 \right] \times \frac{360}{d}$$

(b) For these purposes:

"d<sub>0</sub>", for any Calculation Period, is the number of TARGET Settlement Days in the relevant Calculation Period.

"i" is a series of whole numbers from one to d<sub>0</sub>, each representing the relevant TARGET Settlement Days in chronological order from, and including, the first TARGET Settlement Day in the relevant Calculation Period.

"EONIA<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to the overnight rate appearing, in respect of EUR-EONIA-OIS-COMPOUND, on the Reuters Screen EONIA Page, or, in respect of EUR-EONIA-OIS-COMPOUND-Bloomberg, on the Bloomberg Screen ALLX EBFS Page in respect of that day.

"n<sub>i</sub>" is the number of calendar days in the relevant Calculation Period on which the rate is EONIA<sub>i</sub>; "d" is the number of calendar days in the relevant Calculation Period.

"EONIA Index Cessation Event" means:

- (1) the announcement by the European Money Markets Institute on 31 May 2019 that EONIA would be discontinued on 3 January 2022; or
- (2) the occurrence of any of the following events:
  - a. a public statement or publication of information by or on behalf of the European Money Markets Institute (or a successor administrator of EONIA) announcing that it has ceased or will cease to provide EONIA permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide EONIA; or
  - b. a public statement or publication of information by the regulatory supervisor for the administrator of EONIA, the central bank for the currency of EONIA, an insolvency official with jurisdiction over the administrator of EONIA, a resolution authority with jurisdiction over the administrator of EONIA or a court or an entity with similar insolvency or resolution authority over the administrator of EONIA, which states that the administrator of EONIA has ceased or will cease to provide EONIA permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide EONIA.

"EONIA Index Cessation Effective Date" means, in respect of an EONIA Index Cessation Event, the first date on which EONIA is no longer provided.

"Modified EuroSTR<sub>i</sub>" means for any day "i" in the relevant Calculation Period, a reference rate equal to EuroSTR in respect of that day as published on the ECB's website plus 0.085%.

"EuroSTR" is the euro short term rate (€STR) provided by the European Central Bank as administrator of the benchmark (or a successor administrator) on the ECB's website.

(c) Fallbacks for EuroSTR

Upon the occurrence of a EuroSTR Index Cessation Event, the rate for each day in a Calculation Period occurring on or after the EuroSTR Index Cessation Effective Date will be determined as if references to EONIA<sub>i</sub> were references to the ECB Recommended Rate<sub>i</sub>.

If:

- (1) no such rate is recommended before the end of the first TARGET Settlement Day following the day on which the EuroSTR Index Cessation Event occurs, then the rate for each day in a Calculation Period occurring on or after the EuroSTR Index Cessation Effective Date will be determined as if references to EONIA<sub>i</sub> were references to Modified EDFR (EONIA)<sub>i</sub>; or
- (2) an ECB Recommended Rate Index Cessation Event subsequently occurs, then the rate for each day in a Calculation Period occurring on or after the ECB Recommended



Rate Index Cessation Effective Date will be determined as if references to EONIA<sub>i</sub> were references to Modified EDFR (EONIA).

"EuroSTR Index Cessation Event" means the occurrence of one or more of the following events:

- (1) a public statement or publication of information by or on behalf of the European Central Bank (or a successor administrator of EuroSTR) announcing that it has ceased or will cease to provide EuroSTR permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide EuroSTR; or
- (2) a public statement or publication of information by the regulatory supervisor for the administrator of EuroSTR, the central bank for the currency of EuroSTR, an insolvency official with jurisdiction over the administrator of EuroSTR, a resolution authority with jurisdiction over the administrator of EuroSTR or a court or an entity with similar insolvency or resolution authority over the administrator of EuroSTR, which states that the administrator of EuroSTR has ceased or will cease to provide EuroSTR permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide EuroSTR;

"EuroSTR Index Cessation Effective Date" means, in respect of a EuroSTR Index Cessation Event, the first date on which EuroSTR is no longer provided.

"ECB Recommended Rate", for any day "i" in the relevant Calculation Period, is a reference rate equal to the ECB Recommended Rate in respect of that day, as published or provided by the administrator thereof, plus 0.085%.

"ECB Recommended Rate" means the rate (inclusive of any spreads or adjustments) recommended as the replacement for EuroSTR by the European Central Bank (or any successor administrator of EuroSTR) and/or by a committee officially endorsed or convened by the European Central Bank (or any successor administrator of EuroSTR) for the purpose of recommending a replacement for EuroSTR (which rate may be produced by the European Central Bank or another administrator).

"ECB Recommended Rate Index Cessation Event" means the occurrence of one or more of the following events:

- (1) a public statement or publication of information by or on behalf of the administrator of the ECB Recommended Rate announcing that it has ceased or will cease to provide the ECB Recommended Rate permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide the ECB Recommended Rate; or
- (2) a public statement or publication of information by the regulatory supervisor for the administrator of the ECB Recommended Rate, the central bank for the currency of the ECB Recommended Rate, an insolvency official with jurisdiction over the administrator of the ECB Recommended Rate, a resolution authority with jurisdiction over the administrator of the ECB Recommended Rate or a court or an entity with similar insolvency or resolution authority over the administrator of the ECB Recommended Rate, which states that the administrator of the ECB Recommended Rate has ceased or will cease to provide the ECB Recommended Rate permanently or indefinitely, provided

that, at the time of the statement or publication, there is no successor administrator that will continue to provide the ECB Recommended Rate.

"ECB Recommended Rate Index Cessation Effective Date" means, in respect of an ECB Recommended Rate Index Cessation Event, the first date on which the ECB Recommended Rate is no longer provided.

"Modified EDFR (EONIA)<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to Modified EDFR (EONIA) in respect of that day plus 0.085%.

"Modified EDFR (EONIA)" means the Eurosystem Deposit Facility Rate, as published or provided by the administrator thereof, plus the EDFR Spread.

"Eurosystem Deposit Facility Rate" means the rate on the deposit facility, which banks may use to make overnight deposits with the Eurosystem and which is published on the ECB's website; and

"EDFR Spread" means:

- (1) if no ECB Recommended Rate is recommended before the end of the first TARGET Settlement Day following the day on which the EuroSTR Index Cessation Event occurs, the arithmetic mean of the daily difference between EuroSTR and the Eurosystem Deposit Facility Rate over an observation period of 30 TARGET Settlement Days starting 30 TARGET Settlement Days prior to the day on which the EuroSTR Index Cessation Event occurs and ending on the TARGET Settlement Day immediately preceding the day on which the EuroSTR Index Cessation Event occurs; or
- (2) if an ECB Recommended Rate Index Cessation Event occurs, the arithmetic mean of the daily difference between the ECB Recommended Rate and the Eurosystem Deposit Facility Rate over an observation period of 30 TARGET Settlement Days starting 30 TARGET Settlement Days prior to the day on which the ECB Recommended Rate Index Cessation Event occurs and ending on the TARGET Settlement Day immediately preceding the day on which the ECB Recommended Rate Index Cessation Event occurs.

## 2. EONIA Average

- (a) Any references to an average EONIA rate shall be deemed to be a reference to "EUR-EONIA-AVERAGE", calculated in accordance with the formula set forth below as the average monthly rate of the day-to-day Euro Overnight Index Average (EONIA), adjusted to take into account the exact number of days in the month concerned, provided that the rate for each day in a Calculation Period occurring on or after an EONIA Index Cessation Effective Date will be determined as if references to EONIA<sub>i</sub> were references to Modified EuroSTR<sub>i</sub>.

$$\frac{100}{D} \times \left[ \sum_{i=1}^{i=D} \text{EONIA}_i \right]$$

- (b) For these purposes:

"EONIA<sub>i</sub>", for any relevant day "i" in the month of the Calculation Period, is a reference rate equal to the overnight rate appearing on the Reuters Screen EONIA Page in respect of that

day, if that day is a TARGET Settlement Day, or in respect of the TARGET Settlement Day immediately preceding that day, if that day is not a TARGET Settlement Day.

"D", for the month of the Calculation Period, is the number of calendar days in that month.

"i" is a series of whole numbers from one to D, each representing in the month of the Calculation Period the relevant calendar days in that month in chronological order from, and including, the first day of that month to, and including, the last day of that month.

"EONIA Index Cessation Event" means:

- (1) the announcement by the European Money Markets Institute on 31 May 2019 that EONIA would be discontinued on 3 January 2022; or
- (2) the occurrence of any of the following events:
  - a. a public statement or publication of information by or on behalf of the European Money Markets Institute (or a successor administrator of EONIA) announcing that it has ceased or will cease to provide EONIA permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide EONIA; or
  - b. a public statement or publication of information by the regulatory supervisor for the administrator of EONIA, the central bank for the currency of EONIA, an insolvency official with jurisdiction over the administrator of EONIA, a resolution authority with jurisdiction over the administrator of EONIA or a court or an entity with similar insolvency or resolution authority over the administrator of EONIA, which states that the administrator of EONIA has ceased or will cease to provide EONIA permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide EONIA.

"EONIA Index Cessation Effective Date" means, in respect of an EONIA Index Cessation Event, the first date on which EONIA is no longer provided.

"Modified EuroSTR<sub>i</sub>" means for any day "i" in the relevant Calculation Period, a reference rate equal to EuroSTR in respect of that day, if that day is a TARGET Settlement Day, or in respect of the TARGET Settlement Day immediately preceding that day, if that day is not a TARGET Settlement Day, as published on the ECB's website, plus 0.085%.

"EuroSTR" is the euro short term rate (€STR) provided by the European Central Bank as administrator of the benchmark (or a successor administrator) on the ECB's website.

(c) Fallbacks for EuroSTR

Upon the occurrence of a EuroSTR Index Cessation Event, the rate for each day in a Calculation Period occurring on or after the EuroSTR Index Cessation Effective Date will be determined as if references to EONIA<sub>i</sub> were references to the ECB Recommended Rate<sub>i</sub>.

If:

- (1) no such rate is recommended before the end of the first TARGET Settlement Day following the day on which the EuroSTR Index Cessation Event occurs, then the rate for each day in a Calculation Period occurring on or after the EuroSTR Index Cessation Effective Date will be determined as if references to EONIA<sub>i</sub> were references to Modified EDFR (EONIA)<sub>i</sub>; or

- (2) an ECB Recommended Rate Index Cessation Event subsequently occurs, then the rate for each day in a Calculation Period occurring on or after the ECB Recommended Rate Index Cessation Effective Date will be determined as if references to EONIA<sub>i</sub> were references to Modified EDFR (EONIA)<sub>i</sub>.

"EuroSTR Index Cessation Event" means the occurrence of one or more of the following events:

- (1) a public statement or publication of information by or on behalf of the European Central Bank (or a successor administrator of EuroSTR) announcing that it has ceased or will cease to provide EuroSTR permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide EuroSTR; or
- (2) a public statement or publication of information by the regulatory supervisor for the administrator of EuroSTR, the central bank for the currency of EuroSTR, an insolvency official with jurisdiction over the administrator of EuroSTR, a resolution authority with jurisdiction over the administrator of EuroSTR or a court or an entity with similar insolvency or resolution authority over the administrator of EuroSTR, which states that the administrator of EuroSTR has ceased or will cease to provide EuroSTR permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide EuroSTR.

"EuroSTR Index Cessation Effective Date" means, in respect of a EuroSTR Index Cessation Event, the first date on which EuroSTR is no longer provided.

"ECB Recommended Rate<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to the ECB Recommended Rate in respect of that day, if that day is a TARGET Settlement Day, or in respect of the TARGET Settlement Day immediately preceding that day, if that day is not a TARGET Settlement Day, as published or provided by the administrator thereof, plus 0.085%;

"ECB Recommended Rate" means the rate (inclusive of any spreads or adjustments) recommended as the replacement for EuroSTR by the European Central Bank (or any successor administrator of EuroSTR) and/or by a committee officially endorsed or convened by the European Central Bank (or any successor administrator of EuroSTR) for the purpose of recommending a replacement for EuroSTR (which rate may be produced by the European Central Bank or another administrator).

"ECB Recommended Rate Index Cessation Event" means the occurrence of one or more of the following events:

- (1) a public statement or publication of information by or on behalf of the administrator of the ECB Recommended Rate announcing that it has ceased or will cease to provide the ECB Recommended Rate permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide the ECB Recommended Rate; or
- (2) a public statement or publication of information by the regulatory supervisor for the administrator of the ECB Recommended Rate, the central bank for the currency of the ECB Recommended Rate, an insolvency official with jurisdiction over the administrator of the ECB Recommended Rate, a resolution authority with jurisdiction over the administrator of the ECB Recommended Rate or a court or an entity with similar

insolvency or resolution authority over the administrator of the ECB Recommended Rate, which states that the administrator of the ECB Recommended Rate has ceased or will cease to provide the ECB Recommended Rate permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide the ECB Recommended Rate.

"ECB Recommended Rate Index Cessation Effective Date" means, in respect of an ECB Recommended Rate Index Cessation Event, the first date on which the ECB Recommended Rate is no longer provided.

"Modified EDFR (EONIA)<sub>i</sub>", for any day "i" in the relevant Calculation Period, is a reference rate equal to Modified EDFR (EONIA) in respect of that day, if that day is a TARGET Settlement Day, or in respect of the TARGET Settlement Day immediately preceding that day, if that day is not a TARGET Settlement Day, plus 0.085%.

"Modified EDFR (EONIA)" means the Eurosystem Deposit Facility Rate, as published or provided by the administrator thereof, plus the EDFR Spread.

"Eurosystem Deposit Facility Rate" means the rate on the deposit facility, which banks may use to make overnight deposits with the Eurosystem and which is published on the ECB's website; and

"EDFR Spread" means:

- (1) if no ECB Recommended Rate is recommended before the end of the first TARGET Settlement Day following the day on which the EuroSTR Index Cessation Event occurs, the arithmetic mean of the daily difference between EuroSTR and the Eurosystem Deposit Facility Rate over an observation period of 30 TARGET Settlement Days starting 30 TARGET Settlement Days prior to the day on which the EuroSTR Index Cessation Event occurs and ending on the TARGET Settlement Day immediately preceding the day on which the EuroSTR Index Cessation Event occurs; or
- (2) if an ECB Recommended Rate Index Cessation Event occurs, the arithmetic mean of the daily difference between the ECB Recommended Rate and the Eurosystem Deposit Facility Rate over an observation period of 30 TARGET Settlement Days starting 30 TARGET Settlement Days prior to the day on which the ECB Recommended Rate Index Cessation Event occurs and ending on the TARGET Settlement Day immediately preceding the day on which the ECB Recommended Rate Index Cessation Event occurs.