## **Appendices**



# **Appendices to the Terms and Conditions for Accounts in TARGET-Danmark**

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## Appendix 1 – Technical specifications for the processing of cash transfer orders

In addition to the Harmonised Conditions, the following rules shall apply to the processing of cash transfer orders:

### 1. Testing requirements for participation in TARGET-Danmark

Each participant shall pass a series of tests to prove its technical and operational competence before it may participate in TARGET-Danmark.

#### 2. Account numbers

Each participant's account shall be identified by a unique account number of up to 34 characters made up of five sections as follows:

Name	No. of char- acters	Contents
Account type	1	M = MCA
		R = RTGS DCA
		C = T2S DCA
		I = TIPS DCA
		T = RTGS AS technical account
		U = Sub-account
		A = TIPS AS technical account
		G = AS guarantee fund account
		D = Overnight deposit account
		X = Contingency account
Country code of central bank	2	ISO Country code: 3166-1
Currency code	3	EUR
BIC	11	Account holder BIC
Account name	Max. 17	Free text <sup>3</sup>

#### 3. Messaging rules in TARGET

a) Each participant shall comply with the message structure and field specifications, as defined in Part 3 of the relevant User Detailed Functional Specifications (UDFS).

<sup>&</sup>lt;sup>3</sup> For sub-accounts this section must start with the 3-character AS code as defined by the central bank.

b) Business application headers shall be attached to all message types processed on MCAs, RTGS DCAs (including sub-accounts), RTGS AS technical accounts, AS guarantee fund accounts and T2S DCAs as follows:

Message Type	Description
head.001	Business application header
head.002	Business file header

## 4. Message types processed in TARGET

a) The following message types are processed on MCAs:

Message Type	Description
Administration (admi)	
admi.004	SystemEventNotification
admi.005	ReportQueryRequest
admi.007	ReceiptAcknowledgement
Cash Management (camt)	
camt.003	GetAccount
camt.004	ReturnAccount
camt.005	GetTransaction
camt.006	ReturnTransaction
camt.018	GetBusinessDayInformation
camt.019	Return Business Day Information
camt.025	Receipt
camt.046	GetReservation
camt.047	ReturnReservation
camt.048	ModifyReservation
camt.049	DeleteReservation
camt.050	LiquidityCreditTransfer
camt.053	BankToCustomerStatement

camt.054	Bank To Customer Debit Credit Notification
Payments Clearing and Set- tlement (pacs)	
pacs.009	FinancialInstitutionCreditTransfer
pacs.010	FinancialInstitutionDirectDebit

b) The following message types are processed on RTGS DCAs and, where relevant, on RTGS AS technical accounts and AS guarantee fund accounts:

Administration (admi)	
admi.004	SystemEventNotification
admi.005	ReportQueryRequest
admi.007	ReceiptAcknowledgement
Cash Management (camt)	
camt.003	GetAccount
camt.004	ReturnAccount
camt.005	GetTransaction
camt.006	ReturnTransaction
camt.007	ModifyTransaction
camt.009	GetLimit
camt.010	ReturnLimit
camt.011	ModifyLimit
camt.012	DeleteLimit
camt.018	GetBusinessDayInformation
camt.019	Return Business Day Information
camt.021	ReturnGeneralBusinessInformation
camt.025	Receipt
camt.029	Resolution Of Investigation
camt.046	GetReservation

ReturnReservation
ModifyReservation
DeleteReservation
LiquidityCreditTransfer
BankToCustomerStatement
BankToCustomerDebitCreditNotifica- tion
FIToFIPaymentCancellationRequest
PaymentStatusReport
PaymentStatusReport PaymentReturn
· · · · · · · · · · · · · · · · · · ·
PaymentReturn
Payment Return  Customer Credit Transfer
PaymentReturn  CustomerCreditTransfer  FinancialInstitutionCreditTransfer
PaymentReturn  CustomerCreditTransfer  FinancialInstitutionCreditTransfer
PaymentReturn  CustomerCreditTransfer  FinancialInstitutionCreditTransfer  FinancialInstitutionDirectDebit

## c) The following message types are processed on T2S DCAs:

Message Type	Description
Administration (admi)	
admi.005	ReportQueryRequest
admi.006	ResendRequestSystemEventNotification
admi.007	ReceiptAcknowledgement
Cash Management (camt)	

camt.003	GetAccount
camt.004	ReturnAccount
camt.005	GetTransaction
camt.006	ReturnTransaction
camt.009	GetLimit
camt.010	ReturnLimit
camt.011	ModifyLimit
camt.012	DeleteLimit
camt.018	GetBusinessDayInformation
camt.019	ReturnBusinessDayInformation
camt.024	ModifyStandingOrder
camt.025	Receipt
camt.050	LiquidityCreditTransfer
camt.051	LiquidityDebitTransfer
camt.052	BankToCustomerAccountReport
camt.053	BankToCustomerStatement
camt.054	BankToCustomerDebitCreditNotification
camt.064	LimitUtilisationJournalQuery
camt.065	LimitUtilisationJournalReport
camt.066	IntraBalanceMovementInstruction
camt.067	IntraBalance Movement Status Advice
camt.068	IntraBalanceMovementConfirmation
camt.069	GetStandingOrder
camt.070	ReturnStandingOrder
camt.071	DeleteStandingOrder
camt.072	IntraBalance Movement Modification Request
camt.073	IntraBalanceMovementModificationRequestStatusAdvice

camt.074	IntraBalance Movement Cancellation Request
camt.075	IntraBalance Movement Cancellation Request Status Advice
camt.078	IntraBalanceMovementQuery
camt.079	IntraBalanceMovementQueryResponse
camt.080	IntraBalance Modification Query
camt.081	IntraBalance Modification Report
camt.082	IntraBalanceCancellationQuery
camt.083	IntraBalanceCancellationReport
camt.084	IntraBalanceMovementPostingReport
camt.085	IntraBalance Movement Pending Report

d) The following message types are processed on TIPS DCAs and TIPS AS technical accounts:

Message Type	Description
Administration (admi)	
pacs.002	FIToFIPayment Status Report
pacs.004	PaymentReturn
pacs.008	FIToFICustomerCreditTransfer
pacs.028	FIToFIPaymentStatusRequest
Cash Management (camt)	
camt.003	GetAccount
camt.004	ReturnAccount
camt.011	ModifyLimit
camt.019	ReturnBusinessDayInformation
camt.025	Receipt
camt.029	ResolutionOfInvestigation
camt.050	LiquidityCreditTransfer
camt.052	BankToCustomerAccountReport
camt.053	BankToCustomerStatement

camt.054	BankToCustomerDebitCreditNotification
camt.056	FIToFIPaymentCancellationRequest
acmt.010	AccountRequestAcknowledgement
acmt.011	AccountRequestRejection
acmt.015	AccountExcludedMandateMainte-
	nanceRequest
Reference data (reda)	
reda.016	PartyStatusAdviceV01
reda.022	PartyModificationRequestV01

### 5. Double-entry check

All cash transfer orders shall pass a double-entry check, the aim of which is to reject orders that have been submitted more than once (duplicated cash transfer orders). Details can be found in Part I, Section 3, of the relevant UDFS.

#### 6. Validation rules and error codes

Validation of messages is carried out according to High Value Payments Plus (HVPS+) guidelines on message validations specified by the ISO 20022 standard and TARGET-specific validations. The detailed validation rules and error codes are described in the respective parts of the UDFS as follows:

- a) for MCAs, Chapter 14 of the CLM UDFS.
- b) for RTGS DCAs, Chapter 13 of the RTGS UDFS.
- c) for T2S DCAs, Chapter 4.1 of the T2S UDFS.

If an instant payment order or a positive recall answer is rejected for any reason, the TIPS DCA holder shall receive a payment status report (pacs.002), as described in Chapter 4.2 of the TIPS UDFS. If a liquidity transfer order is rejected for any reason, the TIPS DCA holder shall receive a rejection (camt.025), as described in Chapter 1.6 of the TIPS UDFS.

#### 7. Predetermined settlement times and events

#### RTGS DCAs

- a) For payment orders using the Earliest Debit Time Indicator, the message element'/FromTime/' shall be used.
- b) For payment orders using the Latest Debit Time Indicator, two options shall be available.
  - i. Message element 'RejectTime': if the payment order cannot be settled by the indicated debit time, the order shall be rejected.
  - ii. Message element 'TillTime': if the payment order cannot be settled by the indicated debit time, the order shall not be rejected but shall be kept in the relevant queue.

Under both options, if a payment order with a Latest Debit Time Indicator is not settled 15 minutes prior to the time indicated therein, a notification shall automatically be sent via the GUI.

#### T2S DCAs

- a) For immediate liquidity transfer orders, no specific XML tag is required.
- b) Predefined liquidity transfer orders and standing liquidity transfer orders may be triggered by a specific time or event on the day of settlement:
  - i. for settlement at a specific time, the XML tag 'Time(/ExctnTp/Tm/)' shall be used.
  - ii. for settlement upon occurrence of a specific event, the XML tag '(EventType/Exct-nTp/Evt/)' shall be used.
- c) the validity period for standing liquidity transfer orders shall be set by the following XML tags: 'FromDate/VldtyPrd/FrDt/' and 'ToDate/VldtyPrd/ToDt/'.

#### 8. Offsetting of cash transfer orders on RTGS DCAs

Offsetting checks and, if appropriate, extended offsetting checks (both terms as defined in paragraphs (a) and (b)) shall be carried out on cash transfer orders to facilitate the smooth settlement.

- a) An offsetting check shall determine whether the payee's cash transfer orders that are at the front of the queue for cash transfer orders with the priority 'urgent' or, if inapplicable, 'high' are available to be offset against the payer's cash transfer order (hereinafter: 'offsetting cash transfer orders'). If an offsetting cash transfer order does not provide sufficient funds for the respective payer's cash transfer order it shall be determined whether there is sufficient available liquidity on the payer's RTGS DCA.
- b) If the offsetting check fails, Danmarks Nationalbank may apply an extended offsetting check. An extended offsetting check determines whether offsetting cash transfer orders are available in any of the payee's queues regardless of when they joined the queue. However, if in the queue of the payee there are higher priority cash transfer orders addressed to other participants, the FIFO principle may only be breached if settling such an offsetting cash transfer order would result in a liquidity increase for the payee.

#### 9. Optimisation algorithms on RTGS DCAs and sub-accounts

Four algorithms shall be applied to facilitate the smooth settlement of payment flows. Further information is available in the RTGS UDFS Part 2.

- a) Under the 'partial optimisation' algorithm Danmarks Nationalbank shall:
  - i. calculate and check the liquidity positions, limits, and reservations of each relevant RTGS DCA; and
  - ii. if the total liquidity position of one or more relevant RTGS DCAs is negative, extract single payment orders until the total liquidity position of each relevant RTGS DCA is positive.

Thereafter, Danmarks Nationalbank and the other CBs involved shall, provided there are sufficient funds, settle the relevant remaining cash transfer orders (except the extracted payment orders described in point (ii)) simultaneously on the RTGS DCAs of the participants concerned.

When extracting payment orders, Danmarks Nationalbank shall start from the participant's RTGS DCA with the highest negative total liquidity position and from the payment order at the end of the queue with the lowest priority. The selection process shall only run for a short time, to be determined by Danmarks Nationalbank at its discretion.

- b) Under the 'multiple optimisation' algorithm Danmarks Nationalbank shall:
  - i. compare pairs of participants' RTGS DCAs to determine whether queued payment orders can be settled within the available liquidity of the two participants' RTGS DCAs concerned and within the limits set by them (by starting from the pair of RTGS DCAs with the smallest difference between the payment orders addressed to each other), and the CBs involved shall book those payments simultaneously on the two participants' RTGS DCAs; and
  - ii. if, in relation to a pair of RTGS DCAs as described in point (i), liquidity is insufficient to fund the bilateral position, extract single payment orders until there is sufficient liquidity. In this case the CBs involved shall settle the remaining payments, except the extracted ones, simultaneously on the two participants' RTGS DCAs.

After performing the checks specified in points (i) to (ii), Danmarks Nationalbank shall check the multilateral settlement positions (between a participant's RTGS DCA and other participants' RTGS DCAs in relation to which a multilateral limit has been set). For this purpose, the procedure described under paragraphs (i) to (ii) shall apply mutatis mutandis.

c) Under the 'partial optimisation with AS' algorithm which supports settlement procedure B, Danmarks Nationalbank shall follow the same procedure as for the partial optimisation algorithm, but without extracting AS transfer orders (for an AS

- which settles on a simultaneous multilateral basis, i.e., RTGS AS settlement procedure B).
- d) The 'optimisation on sub-accounts' algorithm is used to optimise the settlement of urgent priority AS transfer orders on participants' sub-accounts. When using this algorithm, Danmarks Nationalbank shall calculate the total liquidity position of each participant's sub-account by establishing whether the aggregate of all outgoing and incoming AS transfer orders pending in the queue is negative or positive. If the outcome of these calculations and checks is positive for each relevant sub-account, Danmarks Nationalbank and other CBs involved shall settle all payment orders simultaneously on the sub-accounts of the participants concerned. If the outcome of these calculations and checks is negative, no settlement shall take place. Furthermore, this algorithm does not take account of any limits or reservations. For each settlement bank the total position is calculated and, if the positions for all settlement banks are covered, all transactions shall be settled. Transactions which are not covered are returned to the queue.
- e) Cash transfer orders entered after the multiple optimisation algorithm, the partial optimisation algorithm or the partial optimisation with AS algorithm has started may nevertheless be settled immediately if the positions and limits of the participants' RTGS DCAs concerned are compatible with both the settlement of these orders and the settlement of cash transfer orders in the current optimisation procedure.
- f) The partial optimisation algorithm and the multiple optimisation algorithm shall be run sequentially in that order. They shall not be run if RTGS AS settlement procedure B is running.
- g) The algorithms shall run flexibly by setting a predefined time lag between the application of different algorithms to ensure a minimum interval between the running of the two algorithms. The time sequence shall be automatically controlled. Manual intervention shall be possible.
- h) While included in a running algorithm, a payment order shall not be reordered (change of the position in a queue) or revoked. Requests for reordering or revocation of a payment order shall be queued until the algorithm is complete. If the payment order concerned is settled while the algorithm is running, any request to reorder or revoke shall be rejected. If the payment order is not settled, the participant's request shall be taken into account immediately.

#### 10. Connectivity

Participants shall connect to TARGET using one of the following modes.

- a) user to application (U2A) mode: in the U2A mode, participants connect via a GUI which allows users to perform business functions based on their respective access rights. It allows users to enter and maintain business data as well as to retrieve business information. The relevant User Handbook (UHB) provides exhaustive information on each of the business functions that the respective GIU provides.
- b) Application to application (A2A) mode: in the A2A mode, software applications communicate with TARGET by exchanging single messages and files based on their respective access rights and message subscription and routing configuration. The A2A communication relies on XML messages, using the ISO 20022 standard where applicable, for both inbound and outbound communication.

The modes of connection are described in further detail in the ESMIG UDFS.

#### 11. The UDFS and the User Handbook

Further details and examples explaining the above rules are contained in the respective UDFS and the User Handbooks for each service, as amended from time to time and published on the ECB's website in English.

## Appendix 2 - TARGET compensation scheme

## 1. General principles

- a) If there is a technical malfunction of TARGET, participants may submit claims for compensation in accordance with the TARGET compensation scheme described in this Appendix.
- b) Unless otherwise decided by the ECB's Governing Council, the TARGET compensation scheme shall not apply if the technical malfunction of TARGET arises out of external events beyond the reasonable control of the CBs concerned, or as a result of acts or omissions by third parties.
- c) Compensation under the TARGET compensation scheme shall be the only compensation procedure offered in the event of a technical malfunction of TARGET. Participants may, however, use other legal means to claim compensation for losses. If a participant accepts a compensation offer under the TARGET compensation scheme, this shall constitute the participant's irrevocable agreement that it thereby waives all claims (including any claims for consequential loss) it may have against any CB, and that the receipt by it of the corresponding compensation payment constitutes the full and final settlement of such claims. The participant shall indemnify the CBs concerned, up to a maximum of the amount received under the TARGET compensation scheme, in respect of any further claims which are raised by any other participant or any other third party in relation to the cash transfer order or payment concerned.
- d) The making of a compensation offer shall not constitute an admission of liability by Danmarks Nationalbank or any other CB for a technical malfunction of TARGET.

## 2. Conditions for compensation offers

- a) A payer may submit a claim for an administration fee and interest compensation if, due to a technical malfunction of TARGET:
  - i. a cash transfer order was not settled on the business day on which it was accepted or could not be submitted; and
  - ii. the participant has attempted to make use of, if applicable, the contingency processing measures as described in Appendix 4, including requesting support from Danmarks Nationalbank.
- b) A payee may submit a claim for an administration fee if, due to a technical malfunction of TARGET, it did not receive a payment that it was expecting to receive on a particular business day. The payee may also submit a claim for interest compensation if one or more of the following conditions are met:

- i. in the case of participants that have access to the marginal lending facility<sup>4</sup>: due to a technical malfunction of TARGET, a payee had recourse to the marginal lending facility; and/or
- ii. in the case of all participants: it was technically impossible to have recourse to the money market or such refinancing was impossible on other, objectively reasonable grounds.

## 3. Calculation of compensation

- a) With respect to a compensation offer for a payer:
  - the administration fee shall be EUR 50 for the first non-settled cash transfer order, EUR 25 for each of the next four such cash transfer orders and EUR 12.50 for each further such cash transfer order. The administration fee shall be calculated separately in relation to each payee.
  - ii. interest compensation shall be determined by applying a reference rate to be fixed from day to day. This reference rate shall be the lower of the euro short term reference rate (€STR) minus 20 basis points and the marginal lending facility rate unless the claim relates to a cash transfer order to the deposit facility, in which case the reference shall be the deposit facility rate. The reference rate shall be applied to:
    - (1) the amount of the cash transfer order, except for the cash transfer orders referred to in point (2), not settled as a result of the technical malfunction of TARGET for each day of the malfunction in the period from the date of the actual submission of the cash transfer order or from the date or the attempted submission of the cash transfer order until the date on which the cash transfer order was or could have been successfully settled;
    - (2) in relation to cash transfer orders to the one or more MCAs or DCAs marked for the purpose of fulfilling minimum reserve requirements, referred to in paragraph 2, point (a), the difference between the amount of the cash transfer order not settled on the day of the technical malfunction of TARGET and the amount by which the participant fell short of in covering its minimum reserve requirements as a result, from the date of the malfunction to the end of the reserve maintenance period.

Any interest or charges resulting from the placing of any non-settled cash transfer orders on deposit shall be deducted from, or charged to, the amount of any compensation, as the case may be.

<sup>&</sup>lt;sup>4</sup> Not applicable to participants in TARGET-Danmark.

- iii. no interest compensation shall be payable if and in so far as funds resulting from nonsettled cash transfer orders were placed in the market or used to fulfil minimum reserve requirements.
- b) With respect to a compensation offer for a payee:
  - the administration fee shall be EUR 50 for the first non-settled cash transfer order, EUR 25 for each of the next four such cash transfer orders and EUR 12.50 for each further such cash transfer order. The administration fee shall be calculated separately in relation to each payer.
  - ii. the method set out in paragraph (a)(ii)(1) for calculating interest compensation shall apply except that interest compensation shall be payable at a rate equal to the difference between the marginal lending facility rate and the reference rate, and shall be calculated on the amount of any recourse to the marginal lending facility or, in the case of participants in any connected CB's TARGET component system, of the overdraft occurring as a result of the technical malfunction of TARGET.

#### 4. Procedural rules

- a) A claim for compensation shall be submitted on the claim form available on the website of Danmarks Nationalbank in English (see www.nationalbanken.dk). Payers shall submit a separate claim form in respect of each payee and payees shall submit a separate claim form in respect of each payer. Sufficient additional information and documents shall be provided to support the information indicated in the claim form. Only one claim form shall be submitted in relation to a specific payment or payment order.
- b) Within 4 weeks of a technical malfunction of TARGET, participants shall submit their claim forms to Danmarks Nationalbank. Any additional information and evidence requested by Danmarks Nationalbank shall be supplied within two weeks of such request being made.
- c) Danmarks Nationalbank shall review the claims and forward them to the ECB. Unless otherwise decided by the ECB's Governing Council and communicated to the participants, all received claims shall be assessed no later than 14 weeks after the technical malfunction of TARGET occurs, unless the claim relates to cash transfer order to the one or more MCAs or DCAs belonging to that participant and marked for the purpose of fulfilling minimum reserve requirements as referred to in paragraph 2, point (a), in which case the received claims shall be assessed no later than 14 weeks after the end of the reserve maintenance period during which the technical malfunction of TARGET occured.
- d) Danmarks Nationalbank shall communicate the result of the assessment referred to in point (c) to the relevant participants. If the assessment entails a compensation offer, the participants concerned shall, within 4 weeks of the communication of such offer, either accept or reject it, in respect of each cash transfer order comprised within each claim, by signing a standard letter of acceptance (in the form available on the website of Danmarks Nationalbank (see www.nationalbanken.dk)). If such letter of acceptance has not been received by

Danmarks Nationalbank within 4 weeks, the participants concerned shall be deemed to have rejected the compensation offer.

e) Danmarks Nationalbank shall make compensation payments on receipt of a participant's letter of acceptance of compensation. No interest shall be payable on any compensation payment.

# Appendix 3 – Terms and reference for capacity and country opinions

Terms of reference for capacity opinions for participants in TARGET

Danmarks Nationalbank Langelinie Allé 47 DK-2100 Copenhagen Ø

### **Participation in TARGET-Danmark**

[location], [date]

Dear Sir or Madam,

We have been asked to provide this Opinion as [in-house or external] legal advisers to [specify name of Participant or branch of Participant] in respect of issues arising under the laws of [jurisdiction in which the Participant is established; hereinafter the 'jurisdiction'] in connection with the participation of [specify name of Participant] (hereinafter the 'Participant') in TARGET-Danmark (hereinafter the 'System').

This Opinion is confined to the laws of [jurisdiction] as they exist as on the date of this Opinion. We have made no investigation of the laws of any other jurisdiction as a basis for this Opinion, and do not express or imply any opinion in this regard. Each of the statements and opinions presented below applies with equal accuracy and validity under the laws of [jurisdiction], whether or not the Participant acts through its head office or one or more branches established inside or outside of [jurisdiction] in submitting cash transfer orders and receiving payments.

#### 1. Documents examined

For the purposes of this Opinion, we have examined:

- a) a certified copy of the [specify relevant constitutional document(s)] of the Participant such as is/are in effect on the date hereof.
- b) [if applicable] an extract from the [specify the relevant company register] and [if applicable] [register of credit institutions or analogous register].
- c) [to the extent applicable] a copy of the Participant's licence or other proof of authorisation to provide banking, investment, payment, or other financial services in line with the access criteria for participation in TARGET in [jurisdiction].
- d) [if applicable] a copy of a resolution adopted by board of directors (or the relevant governing body) of the Participant on [insert date] [insert year], evidencing the Participant's agreement to adhere to the System Documents, as defined below; and
- e) [specify all powers of attorney and other documents constituting or evidencing the requisite power of the person or persons signing the relevant System Documents (as defined below) on behalf of the Participant] and all other documents relating to the Participant's constitution, powers, and authorisations necessary or appropriate for the provision of this Opinion (hereinafter the 'Participant Documents').

For the purposes of this Opinion, we have also examined:

- a) Harmonised Conditions for participation in TARGET Settlement of payments in euro at Danmarks Nationalbank, dated [insert date] (hereinafter the 'Rules'); and
- b) [...].

The Rules and the [...] shall be referred to hereinafter as the 'System Documents' (and collectively with the Participant Documents as the 'Documents').

### 2. Assumptions

For the purposes of this Opinion we have assumed in relation to the Documents that:

- a) the System Documents with which we have been provided are originals or true copies.
- b) the terms of the System Documents and the rights and obligations created by them are valid and legally binding under the laws of Denmark by which they are expressed to be governed, and the choice of the laws of Denmark to govern the System Documents is recognised by the laws of Denmark.

- the Participant Documents are within the capacity and power of the relevant parties and have been validly authorised, adopted or executed and, where necessary, delivered by the relevant parties; and
- d) the Participant Documents are binding on the parties to which they are addressed, and there has been no breach of any of their terms.

## 3. Opinion regarding the Participant

[signature]

- a) The Participant is a corporation duly established and registered or otherwise duly incorporated or organised under the laws of [jurisdiction].
- b) The Participant has all the requisite corporate powers to execute and perform the rights and obligations under the System Documents to which it is a party.
- c) The adoption or execution and the performance by the Participant of the rights and obligations under the System Documents to which the Participant is party do not in any way breach any provision of the laws or regulations of [jurisdiction] applicable to the Participant or the Participant Documents.
- d) No additional approvals, consents, filings, registrations, notarisations, or other certifications of any court or other judicial or public authority that is competent in [jurisdiction] are required by the Participant in connection with the Participant's performance of the System Documents or in relation to the validity or enforceability of the System Documents.
- e) The Participant has taken all necessary corporate action and other steps necessary under the laws of [jurisdiction] to ensure that its obligations under the System Documents are legal, valid, and binding.

This Opinion is stated as of its date and is addressed solely to Danmarks Nationalbank and [the Participant]. No other persons may rely on this Opinion, and the contents of this Opinion may not be disclosed to persons other than its intended recipients and their legal counsel without our prior written consent, with the exception of the European Central Bank and the national central banks of the European System of Central Banks [and [the national central bank/relevant regulatory authorities] of [jurisdiction]].

Yours faithfully,		

## Terms of reference for country opinions for non-EEA participants in TARGET

Danmarks Nationalbank Langelinie Allé 47 DK-2100 Copenhagen Ø

### **Participation in TARGET-Danmark**

[location], [date]

Dear Sir or Madam,

We have been asked as [external] legal advisers to [specify name of Participant or branch of Participant] (the 'Participant') in respect of issues arising under the laws of [jurisdiction in which the Participant is established; hereinafter the 'jurisdiction'] to provide this Opinion under the laws of [jurisdiction] in connection with the participation of [insert name of Participant] in a system which is a component of TARGET (hereinafter the 'System'). References herein to the laws of [jurisdiction] include all applicable regulations of [jurisdiction]. We express an opinion herein under the laws of [jurisdiction], with particular regard to the Participant established outside Denmark in relation to rights and obligations arising from participation in the System, as presented in the System Documents defined below.

This Opinion is confined to the laws of [jurisdiction] as they exist as on the date of this Opinion. We have made no investigation of the laws of any other jurisdiction as a basis for this Opinion, and do not express or imply any opinion in this regard. We have assumed that there is nothing in the laws of another jurisdiction which affects this Opinion.

#### 1. Documents examined

For the purposes of this Opinion, we have examined the documents listed below and such other documents as we have deemed necessary or appropriate:

- a) Harmonised Conditions for participation in TARGET Settlement of payments in euro at Danmarks Nationalbank, dated [insert date] (hereinafter the 'Rules'); and
- b) any other documents governing the System and/or the relationship between the Participant and other participants in the System, and between the participants in the System and Danmarks Nationalbank.

The Rules and [...] shall be referred to hereinafter as the 'System Documents'.

## 2. Assumptions

For the purposes of this Opinion, we have assumed in relation to the System Documents that:

- a) the System Documents are within the capacity and power of the relevant parties and have been validly authorised, adopted, or executed and, where necessary, delivered by the relevant parties.
- b) the terms of the System Documents and the rights and obligations created by them are valid and legally binding under the laws of Denmark by which they are expressed to be governed, and the choice of the laws of Denmark to govern the System Documents is recognised by the laws of Denmark.
- the participants in the System through which any cash transfer orders are sent or payments are received, or through which any rights or obligations under the System Documents are executed or performed, are licensed to provide funds transfer services in all relevant jurisdictions; and
- d) the documents submitted to us in copy or as specimens conform to the originals.

## 3. Opinion

Based on and subject to the foregoing, and subject in each case to the points set out below, we are of the opinion that:

## 3.1 Country-specific legal aspects [to the extent applicable]

The following characteristics of the legislation of [jurisdiction] are consistent with and in no way set aside the obligations of the Participant arising out of the System Documents: [list of country-specific aspects].

#### 3.2 General insolvency and crisis management issues

a) Types of insolvency and crisis management proceedings:

- i. The only types of insolvency proceedings (including composition or rehabilitation) which, for the purpose of this Opinion, shall include all proceedings in respect of the Participant's assets or any branch it may have in [jurisdiction] to which the Participant may become subject in [jurisdiction], are the following: [list proceedings in original language and English translation] (together collectively referred to as 'Insolvency Proceedings').
- ii. In addition to Insolvency Proceedings, the Participant, any of its assets, or any branch it may have in [jurisdiction] may become subject in [jurisdiction] to [list any applicable moratorium, receivership, or any other proceedings as a result of which payments to and/or from the Participant may be suspended, or limitations can be imposed in relation to such payments, or similar proceedings, including crisis prevention and crisis management measures equivalent to those defined in Directive 2014/59/EU of the European Parliament and of the Council, in original language and English translation ] (hereinafter collectively referred to as 'Proceedings with respect to the Participant').

#### b) Insolvency treaties:

[jurisdiction] or certain subdivisions within [jurisdiction], as specified, is/are party to the following insolvency treaties: [specify, if applicable, which treaties have or may have an impact on this Opinion].

#### 3.3 Enforceability of System Documents

Subject to the points set out below, all provisions of the System Documents will be binding and enforceable in accordance with their terms under the laws of [jurisdiction], in particular in the event of the opening of any Insolvency Proceedings or Proceedings with respect to the Participant.

In particular, we are of the opinion that:

a) Processing of cash transfer orders:

The provisions on processing of cash transfer orders of the Rules contained in Part I, Articles 17 and 18, Part II, Articles 4 to 7 and 9, Part III, Articles 5 to 10 and 14 to 17, Part IV, Articles 4 and 6 to 7, Part V, Articles 6 and 10 are valid and enforceable. In particular, all cash transfer orders processed pursuant to such sections will be valid, binding and will be enforceable under the laws of [jurisdiction]. The provision contained in Part I, Article 18, of the Rules which specifies the precise point in time at which cash transfer orders submitted by the Participant to the System become enforceable and irrevocable is valid, binding, and enforceable under the laws of [jurisdiction].

b) Authority of Danmarks Nationalbank to perform its functions:

The opening of Insolvency Proceedings or Proceedings in respect of the Participant will not affect the authority and powers of Danmarks Nationalbank arising out of the System Documents. [Specify [to the extent applicable] that: the same opinion is also applicable in respect of any other entity which provides the Participant with services directly and necessarily required for participation in the System (i.e., the TARGET NSP)].

c) Remedies in the event of default:

Where applicable to the Participant, the provisions contained in Part I, Articles 25 and 27, Part II, Article 9, Part III, Articles 14 and 20, Part IV, Article 7, Part V, Article 10, Part VI, Article 10 and Part VII, Article 11 of the Rules regarding accelerated performance of claims which have not yet matured, the set-off against the deposits of the Participant, the enforcement of a pledge, suspension and termination of participation, interest claims, and termination of agreements and transactions [insert other relevant clauses of the Rules or the System Documents] are valid and enforceable under the laws of [jurisdiction].

#### d) Suspension and termination:

Where applicable to the Participant, the provisions contained in Part I, Article 25, Part II, Article 9, Part III, Article 14, Part IV, Article 7, Part V, Article 10, Part VI, Article 10, and Part VII, Article 11 of the Rules (in respect of suspension and termination of the Participant's participation in the System on the opening of Insolvency Proceedings or Proceedings or other events of default, as defined in the System Documents, or if the Participant represents any kind of systemic risk or has serious operational problems) are valid and enforceable under the laws of [jurisdiction].

#### e) Penalty regime:

NOT APPLICABLE TO PARTICIPANTS IN TARGET-DANMARK.

f) Assignment of rights and obligations:

The rights and obligations of the Participant cannot be assigned, altered, or otherwise transferred by the Participant to third parties without the prior written consent of Danmarks Nationalbank.

g) Choice of governing law and jurisdiction:

The provisions contained in Article 34 of the Rules, and in particular with respect to the governing law, the resolution of a dispute, competent courts, and service of process are valid and enforceable under the laws of [jurisdiction].

#### 3.4 Voidable preferences

We are of the opinion that no performance of or compliance with obligations arising out of the System Documents prior to the opening of any Insolvency Proceedings or Proceedings in respect of the Participant may be set aside in any such proceedings as a preference, voidable transaction or otherwise under the laws of [jurisdiction]. Without limitation to the foregoing, we express this Opinion in respect of any cash transfer orders submitted by any participant in the System. In particular, we are of the opinion that the provisions contained in Part I, Article 18, of the Rules establishing the enforceability and irrevocability of cash transfer orders will be valid and enforceable and that a cash transfer order submitted by any participant and processed pursuant to Part II, Part III, Part IV, Part V, Part VI and Part VII of the Rules may not be set aside in any Insolvency Proceedings as a preference, voidable transaction or otherwise under the laws of [jurisdiction].

#### 3.5 Attachment

If a creditor of the Participant seeks an attachment order (including any freezing order, order for seizure or any other public or private law procedure that is intended to protect the public interest

or the rights of the Participant's creditors – hereinafter referred to as an 'Attachment' – under the laws of [jurisdiction] from a court or governmental, judicial or public authority that is competent in [jurisdiction], we are of the opinion that [insert analysis and discussion].

#### 3.6 Collateral (if applicable)

a) Assignment of rights or deposit of assets for collateral purposes and/or pledge:

Assignment for collateral purposes will be valid and enforceable under the laws of [jurisdiction].

b) Priority of assignees', pledgees', or repo purchasers' interest over that of other claimants:

In the event of Insolvency Proceedings or Proceedings in respect of the Participant, the rights or assets assigned for collateral purposes, or pledged by the Participant in favour of Danmarks Nationalbank or other participants in the System, will rank in priority of payment above the claims of all other creditors of the Participant, including other secured claims, prepreferential claims and preferential claims.

c) Enforcing title to security:

Even in the event of Insolvency Proceedings or Proceedings in respect of the Participant, other participants in the System and Danmarks Nationalbank as [assignees, pledgees, or repo purchasers as applicable] will still be free to enforce and collect the Participant's rights and assets through the action of Danmarks Nationalbank pursuant to the Rules.

d) Form and registration requirements:

There are no form requirements for the assignment for collateral purposes of, or the creation and enforcement of a pledge or repo over the Participant's rights or assets and it is not necessary for the assignment for collateral purposes or pledge to be registered or filed with any court or governmental, judicial, or public authority that is competent in [jurisdiction].

#### 3.7 Branches [to the extent applicable]

a) Opinion applies to action through branches:

Each of the statements and opinions presented regarding the Participant applies with equal accuracy and validity under the laws of [jurisdiction] in situations where the Participant acts through one or more of its branches established outside [jurisdiction].

b) Conformity with law:

Neither the execution and performance of the rights and obligations under the System Documents nor the submission, transmission, or receipt of cash transfer orders by a branch of the Participant will in any respect breach the laws of [jurisdiction].

c) Required authorisations:

Neither the execution and performance of the rights and obligations under the System Documents nor the submission, transmission, or receipt of cash transfer orders by a branch of a Participant

will require any additional authorisations, approvals, consents, filings, registrations, notarisations or other certifications of any court or governmental, judicial or public authority that is competent in [jurisdiction].

This Opinion is stated as of its date and is addressed solely to Danmarks Nationalbank and [the Participant]. No other persons may rely on this Opinion, and the contents of this Opinion may not be disclosed to persons other than its intended recipients and their legal counsel without our prior written consent, with the exception of the European Central Bank and the national central banks of the European System of Central Banks [and [the national central bank/relevant regulatory authorities] of [jurisdiction]].

Yours faithfully,

[signature]

## Appendix 4 – Business continuity and contingency procedures

## 1. General provisions

This Appendix sets out the arrangements between Danmarks Nationalbank and participants if TARGET or one or more of the NSPs fail or are affected by an abnormal external event, or if the failure affects any participant.

All references to specific times in this Appendix are to the local time at the seat of the ECB. Provisions set out in this paragraph 1 shall apply to MCAs, RTGS DCAc and their sub-accounts, RTGS AS technical accounts, T2S DCAs, TIPS DCAs and TIPS AS technical accounts.

#### 1.1 Measures of business continuity and contingency planning

- a) If an abnormal external event occurs and/or there is a failure of TARGET and/or there is a failure of one or more NSPs which effects the normal operation of TARGET, Danmarks Nationalbank shall be entitled to adopt business continuity and contingency processing measures.
- b) The following business continuity and contingency processing measures shall be available in TARGET:
  - i. relocating the operation of TARGET to an alternative site.
  - ii. changing the TARGET operating schedule.
- c) In relation to business continuity and contingency processing measures, Danmarks National-bank shall have full discretion regarding whether and which measures are adopted.

#### 1.2 Incident communication

If an event described under paragraph 1.1(a) occurs, this shall be communicated to participants via the ECB's website, if available, through the GUI(s) and, if applicable, via domestic communication channels. In particular, communications to participants shall include the following information:

- a) a description of the event and its impact on TARGET.
- b) the time at which resolution of the event is expected (if known).
- c) information on the measures already taken.
- d) the advice to participants (if any).
- e) the timestamp of the communication and indication of when an update will be provided.

#### 1.3 Change of operating hours

a) When changing the TARGET operating schedule as provided for in Part I, Article 19(2), of these Conditions, Danmarks Nationalbank may delay the cut-off times of TARGET for a given business day or delay the start of the following business day or change the timing of any other event listed in Appendix 5.

- b) The cut-off times of TARGET for a given business may be delayed if a TARGET failure has occurred during that day but has been resolved before 18:00. Such a closing time delay should not normally exceed two hours and shall be announced as early as possible to participants.
- c) Once a delay of the cut-off times of TARGET is announced, it may be further delayed but may not be withdrawn.

#### 1.4 Other provisions

- a) In the event of a failure of Danmarks Nationalbank, some or all its technical functions in relation to TARGET-Danmark may be performed by other Eurosystem CBs or by the Level 3 NCBs on its behalf.
- b) Danmarks Nationalbank may require that participants participate in regular or ad hoc testing of business continuity and contingency processing measures, training, or any other preventative arrangements, as deemed necessary by Danmarks Nationalbank. Any costs incurred by the participants because of such testing or other arrangements shall be borne solely by the participants.

## 2. Business continuity and contingency procedures (RTGS DCA and RTGS AS settlement procedures)

In addition to the provisions set out in section 1, the provisions set out in this section 2 shall apply specifically to RTGS DCA holders and AS that make use of RTGS AS settlement procedures.

## 2.1 Relocation of the operation of TARGET to an alternative site

- a) The relocation of the operation of TARGET to an alternative site, as referred to in paragraph 1.1(b)(i), may be to a place within the same region or in another region.
- b) If the operation of TARGET is relocated to another region, participants shall: (i) refrain from sending new cash transfer orders to TARGET; (ii) at the request of Danmarks Nationalbank perform a reconciliation; (iii) resubmit any cash transfer orders identified as missing; and (iv) provide Danmarks Nationalbank with all relevant information in this respect.
- c) Danmarks Nationalbank may take any further actions, including debiting and crediting participants' accounts, to return those participants' accounts to their status prior to the reconciliation.

#### 2.2 Change of operating hours

- a) If Danmarks Nationalbank delays the closing of TARGET as provided for in paragraph 1.3 before 16:50, the minimum period of one hour between the cut-off time for customer and interbank payment orders shall remain in place.
- b) AS shall have established means to cope with cases where the reopening time is delayed due to a TARGET failure on the previous day.

#### 2.3 Contingency processing

- a) If it deems it necessary to do so, Danmarks Nationalbank shall initiate the contingency processing of cash transfer orders using the Contingency Solution of TARGET or other means. In such cases, contingency processing shall be provided on a best-efforts basis. Danmarks Nationalbank shall inform its participants of the start of contingency processing via any available means of communication.
- b) In contingency processing using the Contingency Solution of TARGET, cash transfer orders shall be submitted by the RTGS DCA holders and authorised by Danmarks Nationalbank. Danmarks Nationalbank may, exceptionally, also manually input cash transfer orders on behalf of participants. In addition, the AS may submit files containing payment instructions under RTGS AS settlement procedure A, which the AS authorises Danmarks Nationalbank to upload into the Contingency Solution.
- c) The following cash transfer orders shall be considered as 'very critical' and Danmarks Nationalbank shall use best efforts to process them in a contingency without undue delay:
  - i. payments related to the settlement of CLS Bank International operations processed on CLS Settlement.
  - ii. central counterparty margin calls.
- d) Cash transfer orders other than those listed in point (c) and which are required to avoid systematic risk shall be considered as 'critical' and Danmarks Nationalbank may decide to initiate contingency processing in relation to them. Critical cash transfer orders shall include but are not limited to:
  - i. cash transfer orders related to the settlement of other systemically important payment systems as defined in Regulation (EU) No 795/2014 (ECB/2014/28)1;
  - ii. liquidity transfer orders for T2S DCAs or TIPS DCAs.
  - iii. liquidity transfer orders that are indispensable to the execution of very critical cash transfer orders as set out in point (c) or to other critical cash transfer orders.
- e) Cash transfer orders that have been submitted to TARGET-Danmark before the activation of contingency processing, but are queued, may also undergo contingency processing. In such cases Danmarks Nationalbank shall endeavour to avoid the double processing of cash transfer orders, but participants shall bear the risk of such double processing if it occurred.
- f) For contingency processing using the Contingency Solution of TARGET, participants shall provide eligible assets as collateral. During contingency processing, incoming cash transfer orders may be used to fund outgoing cash transfer orders.

### 2.4 Failures linked to participants

a) If a participant has an issue or problem that prevents it from sending cash transfer orders to TARGET, it shall resolve the issue or problem using its own means. In particular, a participant

Regulation of the European Central Bank (EU) No 795/2014 of 3 July 2014 on oversight requirements for systemically important payment systems (ECB/2014/28) (OJ L 217, 23.7.2014, p. 16).

- may use any in-house solutions at its disposal, the GUI functionality to process liquidity transfers and payment orders or use the back-up functionality via the GUI.
- b) If the resolution means and/or solutions or functionalities used by the participant as referred to in paragraph (a) are exhausted or if they are insufficient, the participant may request support from Danmarks Nationalbank and Danmarks Nationalbank shall provide such support on a best-efforts basis. Danmarks Nationalbank shall decide what support it offers to the participant.
- c) Further detailed contingency measures with respect to AS shall be described in additional arrangements between Danmarks Nationalbank and the relevant AS.

## 3. Business continuity and contingency procedures (MCA)

In addition to the provisions set out in section 1, the provisions of this section 3 shall apply specifically to MCA holders.

#### 3.1 Relocation of the operation of TARGET to an alternative site

- a) The relocation of the operation of TARGET to an alternative site, as referred to in paragraph 1.1(b)(i), may be to a place within the same region or in another region.
- b) If the operation of TARGET is relocated to another region, participants shall: (i) refrain from sending new cash transfer orders to TARGET; (ii) at the request of Danmarks Nationalbank perform a reconciliation; (iii) resubmit any cash transfer orders identified as missing; and (iv) provide Danmarks Nationalbank with all relevant information in this respect.
- c) Danmarks Nationalbank may take any further actions, including debiting and crediting participants' accounts to their status prior to the reconciliation.

#### 3.2 Contingency processing

- a) If it deems it necessary to do so, Danmarks Nationalbank shall initiate the contingency processing of cash transfer orders using the Contingency Solution of TARGET or other means. In such cases, contingency processing shall be provided on a best-efforts basis. Danmarks Nationalbank shall inform its participants of the start of contingency processing via any available means of communication.
- b) In contingency processing using the Contingency Solution of TARGET, cash transfer orders shall be submitted by the MCA holders and authorised by Danmarks Nationalbank. Danmarks Nationalbank may, exceptionally, also manually input cash transfer orders on behalf of participants.
- c) Cash transfer orders required to avoid systematic risk shall be considered as 'critical' and Danmarks Nationalbank may decide to initiate contingency processing in relation to them.
- d) Cash transfer orders that have been submitted to TARGET-Danmark before the activation of contingency processing, but are queued, may also undergo contingency processing. In such

- cases Danmarks Nationalbank shall endeavour to avoid the double processing of cash transfer orders, but participants shall bear the risk of such double processing if it occurred.
- e) For contingency processing using the Contingency Solution of TARGET, participants shall provide eligible assets as collateral. During contingency processing, incoming cash transfer orders may be used to fund outgoing cash transfer orders.

### 3.3 Failures linked to participants

- a) If a participant has an issue or problem that prevents it from sending cash transfer orders in TARGET, it shall resolve the issue or problem using its own means. In particular, a participant may use any in-house solutions at its disposal or the GUI functionality to process liquidity transfers and payment orders.
- b) If the resolution means and/or solutions or functionalities used by the participant as referred to in paragraph (a) are exhausted or if they are insufficient, the participant may request support from Danmarks Nationalbank and Danmarks Nationalbank shall provide such support on a best-efforts basis. Danmarks Nationalbank shall decide what support it offers to the participant.

## 4. Business continuity and contingency procedures (T2S DCA)

In addition to the provisions set out in section 1, the provisions set out in this section 4 shall apply specifically to T2S DCA holders.

#### 4.1 Relocation of the operation of TARGET to an alternative site

- a) The relocation of the operation of TARGET to an alternative site, as set out under paragraph 1.1(b)(i), may be to a place within the same region or in another region (where available).
- b) If the operation of TARGET is relocated to another region, participants shall (i) refrain from sending new cash transfer orders to TARGET; (ii) at the request of Danmarks Nationalbank perform a reconciliation; (iii) resubmit any instructions identified as missing; and (iv) provide Danmarks Nationalbank with all relevant information in this respect.
- c) Danmarks Nationalbank shall be allowed to take any further actions, including debiting and crediting participants' accounts, to return those participants' accounts to their status prior to the reconciliation.

## 4.2 Failures linked to participants

- a) If a T2S DCA holder has an issue or problem that prevents it from settling cash transfer orders in TARGET-Danmark, it shall resolve the issue or problem using its own means.
- b) If the resolution means and/or solutions or functionalities used by the participant are exhausted or if they are insufficient, the participant may request support from Danmarks Nationalbank and Danmarks Nationalbank shall provide such support on a best-efforts basis. Danmarks Nationalbank shall decide what support it offers to the participant.

# Appendix 4.a – Supplementary provisions concerning contingency procedures

## General requirements

Appendix 4 of 'Harmonised Conditions for participation in TARGET-Danmark – Settlement of payments in euro at Danmarks Nationalbank' sets out the arrangements between Danmarks Nationalbank and participants and between Danmarks Nationalbank and ancillary systems if:

- one or more components of TARGET Services or ESMIG fail or are affected by an abnormal external event; or
- a failure originates from or affects a participant or an ancillary system.

These provisions are a supplement to Appendix 4.

In addition to the situations described in Appendix 4, Danmarks Nationalbank may choose to take part in contingency processing to the extent deemed necessary to maintain the overall operational stability and to the extent possible with due consideration for the handling of Danmarks Nationalbank's other operations.

## 1. Failures originating from or affecting a participant

Measures in the event of failures originating from or affecting the participant are set out in Appendix 4, paragraph 7 (a) to (c).

- **1.1** In-house solutions It shall generally be the participant's responsibility to resolve the problem, primarily by using in-house solutions, see Appendix 4, paragraph 7(a) to (b).
- **1.2 Support from Danmarks Nationalbank** If the measures referred to above are exhausted or if they are insufficient, the participant may request further support from Danmarks Nationalbank. Danmarks Nationalbank may, to the extent deemed necessary and possible, provide support to the participant; however, such support is limited to include:
  - a) transfers in connection with very critical and critical payments, see Appendix 4, paragraph 6(c) and (d);
  - b) transfers to/from T2S DCAs.

Danmarks Nationalbank's ability to provide support after 17:00 and on TARGET Services opening days which are Danish holidays is very limited.

Requests for transfers shall be made by submitting these fax forms:

'Request for contingency transfer to CLS, EURO1. (very critical payments)'

'Request for transfer from MCA/RTGS DCA account (critical payments)'

'Request for transfer to/from T2S DCA'.

## 2. Failures originating from or affecting an ancillary system

Measures in the event of failures originating from or affecting an ancillary system are described in the separate settlement agreement between Danmarks Nationalbank and the individual ancillary system.

## 3. Communication and power of attorney

**3.1 Means of communication** The general means of communication for initiating and using contingency procedures are fax or email. The special fax forms shall be submitted to Danmarks Nationalbank, Banking and Markets, on +45 3363 7117 or by email to kronosgroup@nationalbanken.dk.

Prior to submitting a fax, the participant must brief Danmarks Nationalbank on telephone +45 3363 6939.

Appendix 10 contains the fax forms prepared by Danmarks Nationalbank to be used by participants in the situations described above. Only these forms will be accepted by Danmarks Nationalbank.

Danmarks Nationalbank may at any time change the form of communication to be used in the event of contingency procedures if this is deemed appropriate.

**3.2 Power of attorney** By submitting the form 'Power of attorney for decisions concerning contingency procedures in TARGET Services', participants shall inform Danmarks Nationalbank who has power of attorney to act in connection with contingency procedures. The form must include the names of the designated persons and specimens of their signatures. The form must be signed by authorised signatories. Subsequent changes to the power of attorney must be made by submitting a new form, see above.

The power of attorney and subsequent changes shall not enter into force until Danmarks Nationalbank has received the original form.

When the form is submitted, the designated persons are granted power of attorney to make decisions in all the contingency situations specified in this Appendix.

## Appendix 5 - TARGET operating schedule

- 1. The value date for transactions settled in TARGET is always the value date on which the system operates.
- All days except Saturday, Sunday, New Year's Day, Good Friday<sup>6</sup>, Easter Monday<sup>7</sup>, 1 May, 2. Christmas Day and 26 December are TARGET business days and thus may be value dates for the purpose of settlement in TARGET.
- 3. TIPS DCAs and TIPS AS technical accounts are operated on all days. All other types of accounts are operated on all days except Saturday, Saturday, New Year's Day, Good Friday8, Easter Monday<sup>9</sup>, 1 May, Christmas Day and 26 December.
- 4. A business day is opened during the evening of the previous business day.
- 5. The reference time for the system is the local time at the seat of the ECB.
- The different phases of the TARGET business day and the significant operational events rele-6. vant to MCAs, RTGS DCAs<sup>10</sup>, T2S DCAs and TIPS DCAs<sup>11</sup> are shown in the following table:

нн:мм	MCAs	RTGS DCAs12	T2S DCAs	TIPS DCAs13
Approx.	Start of business	Start of business	Start of business	Processing of in-
18:45	day:	day:	day:	stant payment
(D-1)	Change of value	Change of value	Change of value	orders.
	date.	date.	date.	
				Processing of li-
			Preparation of night-	quidity transfer
			time settlement.	orders to/from
19:00	Settlement of		Deadline for ac-	TIPS AS technical
(D-1)	CBOs.		ceptance of CMS	accounts.
	Reimbursement of		data feeds.	
	marginal lending.14			No liquidity
			Preparation of night-	transfers be-
	Refunding of over-		time settlement.	tween TIPS DCAs
	night deposits.			and other ac-
				counts.
	Processing of auto-			
	mated and rule-			

<sup>&</sup>lt;sup>6</sup> According to the calendar applicable at the seat of the ECB.

<sup>&</sup>lt;sup>7</sup> According to the calendar applicable at the seat of the ECB.

<sup>&</sup>lt;sup>8</sup> According to the calendar applicable at the seat of the ECB.

<sup>&</sup>lt;sup>9</sup> According to the calendar applicable at the seat of the ECB. <sup>10</sup> Also applies to RTGS AS technical accounts, sub-accounts and AS guarantee fund accounts.

<sup>&</sup>lt;sup>11</sup> Also applies to TIPS AS technical accounts.

 $<sup>^{12}</sup>$  Also applies to RTGS AS technical accounts, sub-accounts and AS guarantee fund accounts.

<sup>&</sup>lt;sup>13</sup> Also applies to TIPS AS technical accounts.

<sup>&</sup>lt;sup>14</sup> Not applicable to participants in TARGET-Danmark.

	based liquidity			
	based liquidity			
10.70	transfer orders.	6 111 1 6 6 6		
19:30	Settlement of	Settlement of AS		Processing of in-
(D-1)	CBOs.	transfer orders.		stant payment
				orders.
	Processing of	Processing of		
	standing liquidity	standing liquidity		Processing of li-
	transfer orders.	transfer orders.		quidity transfer
				orders to/from
	Processing of auto-	Processing of au-		TIPS AS technical
	mated, rule-based	tomated, rule-		accounts and li-
	and immediate li-	based and imme-		quidity transfer
	quidity transfer or-	diate liquidity		orders between
	ders.	transfer orders.		TIPS DCAs and
				MCAs/ RTGS
				DCAs.
20:00			Night-time settle-	Processing of in-
(D-1)			ment cycles.	stant payment
02:30 (D)	-	Settlement of AS		orders.
, ,		transfer orders.		
				Processing of li-
		Processing of au-		quidity transfer
		tomated, rule-		orders to/from
		based and imme-		TIPS AS technical
		diate liquidity		accounts and li-
		transfer orders.		quidity transfer
		transfer or ders.		orders between
		Processing of cus-		TIPS DCAs and
		tomer and inter-		other TARGET ac-
		bank payment or-		counts.
		ders.		counts.
02:30	Non-optional	Non-optional	Non-optional	Processing of in-
(Calendar	maintenance win-	maintenance win-	maintenance win-	stant payment
day	dow until 02:30 on	dow until 02:30	dow until 02:30 on	orders.
following	business days after	on	business days after	orders.
D-1)	closing days, in-	business days af-	closing days includ-	Processing of li-
D-1)	cluding every busi-	ter closing days	ing every business	•
	ness day Monday.	including every	,	quidity transfer
	ness day Monday.	,	day Monday.	orders to/from TIPS AS technical
	Ontional mainta	business day		
	Optional mainte-	Monday.	Optional mainte-	accounts.
	nance window (if		nance window (if	No liquidit.
	needed) from	Optional mainte-	needed) from 03:00-	No liquidity
	03:00-05:00 on	nance window (if		transfer orders
	TARGET business	needed) from		between TIPS
	days.	, -		

		03:00-05:00 on	05:00 on TARGET	DCAs and other
		TARGET business	business days <sup>15</sup>	TARGET accounts
		days.		
Re-open-	Settlement of	Settlement of AS	Night-time settle-	Processing of in-
ing time * (D)	CBOs.	transfer orders.	ment cycles.	stant payment orders.
	Processing of auto-	Processing of au-		
	mated,	tomated, rule-		Processing of li-
	rule-based and im-	based and imme-		quidity transfer
	mediate	diate liquidity		orders to/from
	liquidity transfer	transfer orders.		TIPS AS technical
	orders.			accounts and li-
		Processing of cus-		quidity transfer
		tomer and inter-		orders between
		bank payment or-		TIPS DCAs and
		ders.		other TARGET ac-
				counts.
05:00 (D)			Day trade/Real-time	
			settlement:	
			Real-time settlement	
			preparation;	
			Partial settlement	
4.C. 0.0 (D)			window <sup>16</sup> .	
16:00 (D)			Cut-off for DvP or- ders.	
16.70 (D)			Automatic auto-col-	
16:30 (D)			lateralisation reim-	
			bursement followed	
			by the optional cash	
			sweep.	
17:00 (D)		Cut-off for cus-		
17:40 (D)		tomer payment	Cut-off for bilaterally	
_,(5)		orders.	agreed treasury	
			management opera-	
			tions (BATM) and	
			CBO cut-off.	
17:45 (D)		Cut-off for liquid-	Cut-off for inbound	Processing of in-
` '		ity transfer or-	liquidity transfer or-	stant payment
		ders to T2S-	ders.	orders.
		DCAs.		
				Processing of li-
				quidity transfer

 <sup>15</sup> For T2S DCAs: For the purpose of the maintenance window, 1 May shall be considered a business day.
 16 Partial settlement windows take place at 08:00, 10:00, 12:00, 14:00 and 15:30 (or 30 minutes before the beginning of the DvP cut-off time, whichever comes first).

18:00 (D)	Cut-off for: - liquidity transfer orders - CBOs, except standing facilities <sup>17</sup> - credit line modifications.	Cut-off for: - interbank payment orders and - liquidity transfer orders - AS transfer orders.	FOP cut-off. End of T2S settlement processing. Recycling and purging. End of day reporting and statements.	orders to/from TIPS AS technical accounts and li- quidity transfer orders between TIPS DCAs and MCAs/ RTGS DCAs.  Blocking of li- quidity transfer orders from TIPS DCAs to T2S DCAs. No liquid- ity transfer or- ders between T2S DCAs and TIPS DCAs are processed during this period.  Processing of in- stant payment orders.  Processing of li- quidity transfer orders to/from TIPS AS technical accounts. No li- quidity transfer orders between TIPS DCAs and other accounts.  Shortly after 18:00: Change of busi- ness day (after receiving the camt.019 mes- sage from MCA/RTGS)
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 $<sup>^{\</sup>rm 17}$  Standing facilities are not applicable to participants in TARGET-Danmark.

			and end-of-day reporting.
18:15 (D)	Cut-off for use of standing facilities. <sup>18</sup>		Processing of instant payment orders and liquidity
18:40 (D)	Cut-off for use of marginal lending <sup>19</sup> (NCBs only). End-of-day pro- cessing.		transfer orders to/from TIPS AS technical ac- counts. No liquidity transfer orders between TIPS DCAs and other accounts.

The operating hours may be changed in the event that business continuity measures are adopted in accordance with Appendix 4. On the last day of the Eurosystem reserve maintenance period, the cut-off times 18:15, 18:40, 18:45, 19:00 and 19:30 for MCAs and RTGS DCAs (as well as RTGS AS technical accounts and sub-accounts and AS guarantee fund accounts) shall occur 15 minutes later.

## List of abbreviations and notes to this table:

\*Re-opening times: may vary according to the situation. This information is provided by the Operator.

(D-1): previous business day(D): business day = value day

CMS: Collateral Management System

DvP orders: Delivery versus Payment orders.

<sup>19</sup> Not applicable to participants in TARGET-Danmark.

 $<sup>^{\</sup>rm 18}$  Standing facilities are not applicable to participants in TARGET-Danmark.

# Appendix 6 - Fee schedule

## 1. General

- a) The following services are not included in the services offered by Danmarks Nationalbank and shall be charged by the relevant service providers in accordance with their terms and conditions:
  - i. services offered by NSPs.
  - ii. non-cash related T2S services.
- b) A participant that wishes to change its choice of fee schedule shall communicate this to Danmarks Nationalbank by the twentieth calendar day of the month so that it can be considered for the following month.

## 2. Fees for MCA holders

a) MCAs and transactions settled on them shall not incur fees.

#### 3. Fees for RTGS DCA holders

- a) RTGS DCA holders shall choose one of the following two pricing options:
  - i. a monthly fee, plus a fixed transaction fee per payment order (debit entry);

Monthly fee	EUR 150
Transaction fee per payment order	EUR 0.80

ii. a monthly fee, plus a transaction fee based on the volume of payment orders (debit entry) and calculated on a cumulative basis as set out in the following table. For participants in a billing group the monthly volume of payment orders (debit entry) for all participants in that group shall be aggregated.

Monthly fee			EUR 1 875
Monthly volume of payment orders			
Band	From	То	Transaction fee per payment or- der (EUR)
1.	1	10 000	0.60
2.	10 001	25 000	0.50
3.	25 001	50 000	0.40
4.	50 001	75 000	0.20
5.	75 001	100 000	0.125
6.	100 001	150 000	0.08
7.	Above 150 000		0.05

- b) Liquidity transfer orders from RTGS DCAs to sub-accounts, to MCAs, to overnight deposit accounts or to RTGS DCAs held by the same participant or by participants within the same banking group shall be free of charge.
- c) Liquidity transfer orders from RTGS DCAs to MCAs or RTGS DCAs held by participants not belonging to the same banking group shall incur a charge of EUR 0.80 per transaction (debit entry).
- d) Liquidity transfer orders from RTGS DCAs to T2S DCAs or TIPS DCAs shall be free of charge.
- e) Cash transfer orders from an RTGS DCA to an AS account1 shall not be charged to the RTGS DCA holder.
- f) The following fees shall apply to RTGS DCA holders:

Service	Monthly fee (EUR)
Addressable BIC holder (correspondents²)	20
Unpublished BIC	30
Multi-addressee access (based on BIC 8)	80

<sup>&</sup>lt;sup>1</sup> Regardless of whether it is an RTGS DCA, an RTGS AS technical account or an AS guarantee fund account.

<sup>&</sup>lt;sup>2</sup> Addressable BICs are available for different participant types: Addressable BIC - Correspondent; Addressable BIC - Branch of Direct Participant; and Addressable BIC - Branch of Correspondent. Only the Addressable BIC - Correspondent participation type shall incur the fee. The fee shall be charged for each BIC11.

## 4. Fees for AS using RTGS AS settlement procedures

Fees are charged per ancillary system regardless of the number and type of accounts. AS operators operating more than one system will be charged for each system.

- a) AS using RTGS AS settlement procedures or having been granted an exception allowing them to settle on an RTGS DCA shall choose one of the following two pricing options:
  - i. a monthly fee, plus a fixed transaction fee per cash transfer order.
  - ii. a monthly fee, plus a transaction fee based on the volume of cash transfer orders and calculated on a cumulative basis as set out in the following table

Monthly fee	EUR 300
Transfer fee per cash transfer order	EUR 1.60

Monthly fee			EUR 3 750
Monthly volume of cash transfer orders			
Band	From	То	Transaction fee per cash transfer or- der (EUR)
1.	1	5 000	1.20
2.	5 001	12 500	1.00
3.	12 501	25 000	0.80
4.	25 001	50 000	0.40
5.	Above 50 000		0.25

Cash transfer orders between an RTGS DCA and an AS account<sup>3</sup> shall be charged to the respective AS according to the pricing option that the AS has opted for.

b) In addition to the fees set out above, each AS shall be subject to fixed fees as set out in the following table:

<sup>&</sup>lt;sup>3</sup> Regardless of whether it is an RTGS DCA, an RTGS AS technical account or an AS guarantee fund account.

A. Fixed fee I			
	EUR 2 000		
B. F	ixed fee II (based on the gross underlying value <sup>4</sup> )		
Size (EUR million/day)	Annual fee (EUR)	Monthly fee (EUR)	
from 0 to 999.99	10 000	833	
from 1 000 to 2 499.99	20 000	1 667	
from 2 500 to 4 999.99	40 000	3 334	
from 5 000 to 9 999.99	60 000	5 000	
from 10 000 to 49 999.99	80 000	6 666	
from 50 000 to 499 999.99	100 000	8 333	
500 000 and above	200 000	16 667	

<sup>&</sup>lt;sup>4</sup> The 'gross underlying value' is the total amount of gross monetary obligations that are discharged via an AS after settlement has taken place on an RTGS DCA or sub-account. For CCPs, the gross underlying value is the total notional value of future contracts or the mark-to-market value of future contracts, at values to be settled when future contracts expire, and commissions are applied.

## 5. Fees for T2S DCA holders

a) The following fees shall be charged for the operation of T2S DCAs:

Subject	Applied rule	Fee per item (EUR)
Liquidity transfer orders between T2S DCAs	Per transfer for the debited T2S DCA.	0.141
Intra-balance move- ments	Any successfully executed intra-balance movement (i.e., blocking, unblocking, reservation of liquidity, etc.).	0.094
A2A queries	Per business item within each A2A query generated.	0.007
A2A reports	Per business item within each generated A2A report, including A2A reports because of U2A queries.	0.004
Messages bundled into a file	Per message in each file containing bundled messages.	0.004
Transmission	Each transmission per T2S party (both inbound and outbound) will be counted and charged for (except for technical acknowledgement messages).	0.012
U2A queries	Any executed query search function.	0.100
Fee per T2S DCA	Any T2S DCA existing at any time during the monthly bill- ing period Currently free of charge. To be reviewed at regular inter- vals.	0.000
Auto-collateralisation	Issue or return of auto-collateralisation.	0.000

b) Liquidity transfer orders from a T2S DCA to an RTGS DCA, a TIPS DCA or an MCA shall be free of charge.

## 6. Fees for TIPS DCA holders

- 1. Fees for the operation of TIPS DCAs shall be charged as follows:
- a) For each TIPS DCA, a monthly fixed fee of EUR 800 shall be charged to the holder of the TIPS DCA. This fixed fee shall include one BIC, which shall be a reachable party in TIPS and designated for the use of the TIPS DCA holder;

- b) For each further reachable party, up to a maximum of 50, designated by the TIPS DCA holder, a monthly fixed fee of EUR 20 shall be charged to the designating TIPS DCA holder. No fee shall be charged for any subsequent reachable parties designated;
- c) For each instant payment order or positive recall answer accepted by Danmarks National-bank as set out in Part I, Article 17, a fee of EUR 0.001 shall be charged to both the holder of the TIPS DCA to be debited and the holder of the TIPS DCA or TIPS AS technical account to be credited, whether or not the instant payment order or positive recall answer settles;
- d) No fee shall be charged for liquidity transfer orders from TIPS DCAs to MCAs, RTGS DCAs, sub-accounts, overnight deposit accounts, TIPS AS technical accounts or T2S DCAs.

## 7. Fees for AS using TIPS as settlement procedure

- 1. Fees for the use by an AS of the TIPS AS settlement procedure shall be charged as follows:
- a) For each TIPS AS technical account, a monthly fixed fee of EUR 3,000 shall be charged to the holder of the TIPS AS technical account;
- b) For each reachable party, up to a maximum of 50, designated by the TIPS AS technical account holder, a monthly fixed fee of EUR 20 shall be charged to the designating TIPS AS technical account holder. No fee shall be charged for the any subsequent reachable parties designated;
- c) For each instant payment order or positive recall answer accepted by Danmarks National-bank as set out in Part I, Article 17, a fee of EUR 0.001 shall be charged to both the holder of the TIPS AS technical account to be debited and to the holder of the TIPS AS technical account or TIPS DCA to be credited, whether or not the instant payment order or positive recall answer settles;
- d) No fee shall be charged for liquidity transfer orders from TIPS AS technical accounts to TIPS DCAs;
- e) In addition to the fees set out above, each AS shall be subject to a monthly fee based on the gross underlying volume of instant payments, near instant payments and positive recall answers settled in the AS's own platform and enabled by the pre-funded positions on the TIPS AS technical account. For each month, each AS shall report the gross underlying volume of its settled instant payments, near instant payments and settled positive recall answers rounded down to the nearest ten thousand, at the latest by the third business day of the following month. The reported gross underlying volume shall be applied by Danmarks Nationalbank to calculate the unit fee per settled instant payment, near instant payment or settled positive recall answer for the previous month according to the following table:

Reported gross underlying volume			
From	То	Unit fee (EUR)	
0	10 000 000	0,00040 EUR	
10 000 001	25 000 000	0,00030 EUR	
25 000 001	100 000 000	0,00020 EUR	
100 000 001		0,00015 EUR	

# Appendix 7 – Requirements regarding information security management and business continuity management

## MCA holders, T2S DCA holders and TIPS DCA holders

These requirements regarding information security management shall not apply to MCA holders, T2S DCA holders and TIPS DCA holders.

## RTGS DCA holders and AS

The requirements set out in section 1 of this Appendix 7 (information security management) shall apply to all RTGS DCA holders and AS, except where an RTGS DCA holder or an AS demonstrates that a specific requirement is not applicable to it. In establishing the scope of application of the requirements within its infrastructure, the participant should identify the elements that are part of the Payment Transaction Chain (PTC). Specifically, the PTC starts at a Point of Entry (PoE), i.e., a system involved in the creation of transactions (e.g., workstations, front-office and back-office applications, middleware), and ends at the system responsible for sending the message to the NSP. The requirements set out in section 2 of this Appendix 7 (business continuity management) shall apply to RTGS DCA holders and AS designated by the Eurosystem as being critical for the smooth functioning of the TARGET system based on criteria periodically updated and published on the ECB's website.

#### 1. Information security management

#### Requirement 1.1: Information security policy

The management shall set a clear policy direction in line with business objectives and demonstrate support for and commitment to information security through the issuance, approval and maintenance of an information security policy aiming at managing information security and cyber resilience across the organisation in terms of identification, assessment and treatment of information security and cyber resilience risks. The policy should contain at least the following sections: objectives, scope (including domains such as organisation, human resources, asset management etc.), principles and allocation of responsibilities.

#### Requirement 1.2: Internal organisation

An information security framework shall be established to implement the information security policy within the organisation. The management shall coordinate and review the establishment of the information security framework to ensure the implementation of the information security policy (as per Requirement 1.1) across the organisation, including the allocation of sufficient resources and assignment of security responsibilities for this purpose.

#### Requirement 1.3: External parties

The security of the organisation's information and information processing facilities should not be reduced by the introduction of, and/or dependence on, an external party/parties or products/services provided by them. Any access to the organisation's information processing facilities by external parties shall be controlled. When external parties or products/services of external parties are required to access to the organisation's information processing facilities, a risk assessment shall be carried out to determine the security implications and control requirements. Controls shall be agreed and defined in an agreement with each relevant external party.

#### Requirement 1.4: Asset management

All information assets, business processes and the underlying information systems, such as operating systems, infrastructures, business applications, off-the-shelf products, services, and user-developed applications, in the scope of the Payment Transaction Chain shall be accounted for and have a nominated owner. The responsibility for the maintenance and operation of appropriate controls in the business processes and the related IT components to safeguard the information assets shall be assigned. Note: the owner can delegate the implementation of specific controls as appropriate but remains accountable for the proper protection of the assets.

#### Requirement 1.5: Information asset classification

Information assets shall be classified in terms of their criticality to the smooth delivery of the service by the participant. The classification shall indicate the need, priorities and degree of protection required when handling the information asset in the relevant business processes and shall also take into consideration the underlying IT components. An information asset classification scheme approved by the management shall be used to define an appropriate set of protection controls throughout the information asset lifecycle (including removal and destruction of information assets) and to communicate the need for specific handling measures.

#### Requirement 1.6: Human resources security

Security responsibilities shall be addressed prior to employment in adequate job descriptions and in terms and conditions of employment. All candidates for employment, contractors and third-party users shall be adequately screened, especially for sensitive jobs. Employees, contractors, and third-party users of information processing facilities shall sign an agreement on their security roles and responsibilities. An adequate level of awareness shall be ensured among all employees, contractors and third-party users, and education and training in security procedures and the correct use of information processing facilities shall be provided to them to minimise possible security risks. A formal disciplinary process for handling security breaches shall be established for employees. Responsibilities shall be in place to ensure that an employee's, contractor's, or third-party user's exit from or transfer within the organisation is managed, and that the return of all equipment and the removal of all access rights are completed.

#### Requirement 1.7: Physical and environmental security

Critical or sensitive information processing facilities shall be housed in secure areas, protected by defined security perimeters, with appropriate security barriers and entry controls. They shall be physically protected from unauthorised access, damage, and interference. Access shall be granted only to individuals who fall within the scope of Requirement 1.6. Procedures and standards shall be established to protect physical media containing information assets when in transit. Equipment shall be protected from physical and environmental threats. Protection of equipment (including equipment used off-site) and against the removal of property is necessary to reduce the risk of unauthorised access to information and to quard against loss or damage of equipment or

(including equipment used off-site) and against the removal of property is necessary to reduce the risk of unauthorised access to information and to guard against loss or damage of equipment or information. Special measures may be required to protect against physical threats and to safeguard supporting facilities such as the electrical supply and cabling infrastructure.

#### Requirement 1.8: Operations management

Responsibilities and procedures shall be established for the management and operation of information processing facilities covering all the underlying systems in the Payment Transaction Chain end-to-end.

As regards operating procedures, including technical administration of IT systems, segregation of duties shall be implemented, where appropriate, to reduce the risk of negligent or deliberate system misuse. Where segregation of duties cannot be implemented due to documented objective reasons, compensatory controls shall be implemented following a formal risk analysis. Controls shall be established to prevent and detect the introduction of malicious code for systems in the Payment Transaction Chain. Controls shall also be established (including user awareness) to prevent, detect and remove malicious code. Mobile code shall be used only from trusted sources (e.g., signed Microsoft COM components and Java Applets). The configuration of the browser (e.g., the use of extensions and plug-ins) shall be strictly controlled.

Data backup and recovery policies shall be implemented by the management; those recovery policies shall include a plan of the restoration process which is tested at regular intervals at least annually.

Systems that are critical for the security of payments shall be monitored and events relevant to information security shall be recorded. Operator logs shall be used to ensure that information system problems are identified. Operator logs shall be regularly reviewed on a sample basis, based on the criticality of the operations. System monitoring shall be used to check the effectiveness of controls which are identified as critical for the security of payments and to verify conformity to an access policy model.

Exchanges of information between organisations shall be based on a formal exchange policy, carried out in line with exchange agreements among the involved parties and shall be compliant with any relevant legislation. Third-party software components employed in the exchange of information with TARGET (e.g. software received from a Service Bureau) must be used under a formal agreement with the third party.

#### Requirement 1.9: Access control

Access to information assets shall be justified based on business requirements (need-to-know<sup>24</sup>) and according to the established framework of corporate policies (including the information security policy). Clear access control rules shall be defined based on the principle of least privilege<sup>25</sup> to reflect closely the needs of the corresponding business and IT processes. Where relevant (e.g., for backup management), logical access control should be consistent with physical access control unless there are adequate compensatory controls in place (e.g., encryption, personal data anonymisation).

Formal and documented procedures shall be in place to control the allocation of access rights to information systems and services that fall within the scope of the Payment Transaction Chain. The procedures shall cover all stages in the lifecycle of user access, from the initial registration of new users to the final deregistration of users that no longer require access.

Special attention shall be given, where appropriate, to the allocation of access rights of such criticality that the abuse of those access rights could lead to a severe adverse impact on the operations of the participant (e.g., access rights allowing system administration, override of system controls, direct access to business data).

Appropriate controls shall be put in place to identify, authenticate, and authorise users at specific points in the organisation's network, e.g., for local and remote access to systems in the Payment Transaction Chain. Personal accounts shall not be shared to ensure accountability.

For passwords, rules shall be established and enforced by specific controls to ensure that passwords cannot be easily guessed, e.g., complexity rules and limited-time validity. A safe password recovery and/or reset protocol shall be established.

A policy shall be developed and implemented on the use of cryptographic controls to protect the confidentiality, authenticity, and integrity of information. A key management policy shall be established to support the use of cryptographic controls.

There shall be a policy for viewing confidential information on screen or in print (e.g., a clear screen, a clear desk policy) to reduce the risk of unauthorised access.

When working remotely, the risks of working in an unprotected environment shall be considered and appropriate technical and organisational controls shall be applied.

<u>Requirement 1.10: Information systems acquisition, development, and maintenance</u>

Security requirements shall be identified and agreed prior to the development and/or implementation of information systems.

Adequate controls shall be built into applications, including user-developed applications, to ensure correct processing. These controls shall include the validation of input data, internal processing, and output data. Additional controls may be required for systems that process, or have an impact on, sensitive, valuable, or critical information. Such controls shall be determined based on

<sup>&</sup>lt;sup>24</sup> The need-to-know principle refers to the identification of the set of information that an individual needs access to to carry out his/her duties.

<sup>25</sup> The principle of least privilege refers to the tailoring a subject's access profile to an IT system to match the corresponding business role.

security requirements and risk assessment according to the established policies (e.g., information security policy, cryptographic control policy).

The operational requirements of new systems shall be established, documented, and tested prior to their acceptance and use. As regards network security, appropriate controls, including segmentation and secure management, should be implemented based on the criticality of the data flows and the level of risk of the network zones in the organisation. There shall be specific controls to protect sensitive data passing over public networks.

Access to system files and program source code shall be controlled and IT projects and support activities conducted in a secure manner. Care shall be taken to avoid exposure of sensitive data in test environments. Project and support environments shall be strictly controlled. Deployment of changes in production shall be strictly controlled. A risk assessment of major changes to be deployed in production shall be conducted.

Regular security testing activities of systems in production shall also be conducted according to a predefined plan based on the outcome of a risk assessment, and security testing shall include, at least, vulnerability assessments. All of the shortcomings highlighted during the security testing activities shall be assessed and action plans to close any identified gap shall be prepared and followed up in a timely fashion.

#### Requirement 1.11: Information security in third-party supplier relationships

To ensure protection of the participant's internal information systems that are accessible by suppliers, information security requirements for mitigating the risks associated with the supplier's access shall be documented and formally agreed upon with the supplier.

#### Requirement 1.12: Management of information security incidents and improvements

To ensure a consistent and effective approach to the management of information security incidents, including communication on security events and weaknesses, roles, responsibilities, and procedures, at business and technical level, shall be established and tested to ensure quick, effective, and orderly recovery from information security incidents, including scenarios related to a cyber-related cause (e.g., fraud by an external attacker or by an insider). Personnel involved in these procedures shall be adequately trained.

#### Requirement 1.13: Technical compliance review

A participant's internal information systems (e.g., back-office systems, internal networks, and external network connectivity) shall be regularly assessed for compliance with the organisation's established framework of policies (e.g., information security policy, cryptographic control policy).

## Requirement 1.14: Virtualisation

Guest virtual machines shall comply with all the security controls that are set for physical hardware and systems (e.g., hardening and logging). Controls relating to hypervisors must include hardening of the hypervisor and the hosting operating system, regular patching, strict separation of different environments (e.g., production and development). Centralised management, logging and

monitoring as well as managing of access rights, in particular for high privileged accounts, shall be implemented based on a risk assessment. Guest virtual machines managed by the same hypervisor shall have a similar risk profile.

#### Requirement 1.15: Cloud computing

The usage of public and/or hybrid cloud solutions in the Payment Transaction Chain must be based on a formal risk assessment, considering the technical controls and contractual clauses related to the cloud solution.

If hybrid cloud solutions are used, it is understood that the criticality level of the overall system is the highest one of the connected systems. All on-premises components of the hybrid solutions must be segregated from the other on-premises systems.

#### 2. Business continuity management

The following requirements relate to business continuity management. Each TARGET participant designated by the Eurosystem as being critical for the smooth functioning of the TARGET system shall have a business continuity strategy in place that complies with the following requirements.

#### Requirement 2.1:

Business continuity plans shall be developed and procedures for maintaining them shall be in place.

#### Requirement 2.2:

An alternate operational site shall be available.

#### Requirement 2.3:

The risk profile of the alternate site shall be different from that of the primary site, to avoid that both sites are affected by the same event at the same time. For example, the alternate site shall be on a different power grid and central telecommunication circuit from those of the primary business location.

#### Requirement 2.4:

In the event of a major operational disruption rendering the primary site inaccessible and/or critical staff unavailable, the critical participant shall be able to resume normal operations from the alternate site, where it shall be possible to properly close the business day and open the following business day(s).

#### Requirement 2.5:

Procedures shall be in place to ensure that the processing of transactions is resumed from the alternate site within a reasonable timeframe after the initial disruption of service and commensurate to the criticality of the business that was interrupted.

## Requirement 2.6:

The ability to cope with operational disruptions shall be tested at least once a year and critical staff shall be aptly trained. The maximum period between tests shall not exceed one year.

## Appendix 8 - Definitions

- 1) 'account monitoring group' means a group of two or more MCAs and/or DCAs in respect of which one participant, the leader party, has a view over the balance on each of the TARGET accounts in the group;
- 2) 'addressable BIC holder' means an entity which: (a) holds a Business Identifier Code (BIC); and (b) is a correspondent or customer of an RTGS DCA holder or a branch of an RTGS DCA holder, and is able to submit payment orders to and receive payments from a TARGET component system via that RTGS DCA holder.
- 'ancillary system' (AS) means a system operated by an entity in the Union or the EEA that is subject to supervision and/or oversight by a competent authority and complies with the oversight requirements for the location of infrastructures offering services in euro, as amended from time to time and published on the ECB's website, in which payments and/or financial instruments are exchanged and/or cleared or recorded with (a) the monetary obligations resulting in cash transfer orders which are settled in TARGET and/or (b) funds held in TARGET in accordance with Guideline ECB/2022/8;
- 4) 'ancillary system guarantee fund account' (AS guarantee fund account) means a technical account used for the purpose of holding guarantee funds to support RTGS AS settlement procedures A and B;
- 5) 'ancillary system settlement procedure' (AS settlement procedure) means any TIPS AS settlement procedure or RTGS AS settlement procedure;
- 6) 'ancillary system transfer order' (AS transfer order) means any cash transfer order that is initiated by an ancillary system for the purpose of an RTGS ancillary system settlement procedure;
- 7) 'auto-collateralisation' NOT APPLICABLE TO PARTICIPANTS IN TARGET-DANMARK;
- 8) 'automated liquidity transfer order' means a liquidity transfer order generated automatically to transfer funds from a designated RTGS DCA to the participant's MCA in the event there are insufficient funds on that MCA for the settlement of central bank operations;
- 9) 'available liquidity' means a credit balance on a participant's account and, if applicable, any intraday credit line granted on the MCA by the relevant euro area NCB in relation to such account but not yet drawn upon or, if applicable, decreased by the amount of any processed reservations of liquidity or blocking of funds on MCAs or DCAs;

## 10) 'banking group' means:

a) a composition of credit institutions included in the consolidated financial statements of a parent company, where the parent company is obliged to present consolidated financial statements under International Accounting Standard 27 (IAS 27), adopted pursuant to Commission Regulation (EC) No 1126/2008 and consisting of either: (i) a parent

- company and one or more subsidiaries; or (ii) two or more subsidiaries of a parent company; or
- b) a composition of credit institutions as referred to in paragraph (a)(i) or (ii), where a parent company does not present consolidated financial statements in accordance with IAS 27, but may be able to satisfy the criteria defined in IAS 27 for inclusion in consolidated financial statements, subject to verification of the CB of the participant.
- c) a bilateral or multilateral network of credit institutions that is: (i) organised through a statutory framework determining the affiliation of credit institutions to such a network; or (ii) characterised by self-organised mechanisms of cooperation (promoting, supporting and representing the business interests of its members) and/or economic solidarity going beyond the ordinary cooperation usual between credit institutions whereby such cooperation and solidarity are permitted by credit institutions' by-laws or articles of incorporation or established by virtue of separate agreements and in each case referred to in points (c)(i) and (c)(ii) the ECB's Governing Council has approved an application to be considered as constituting a banking group;
- 'branch' means a branch within the meaning of point (17) of Article 4(1) of Regulation (EU) No 575/2013 of the European Parliament and of the Council or point (30) of Article 4(1) of Directive 2014/65/EU of the European Parliament and of the Council, except as referred to in Article 9(8) of the European Central Bank's guideline EU/2022/912 as amended by guideline EU/2024/2616.
- 12) **'broadcast message'** means information made simultaneously available to all or a selected group of participants;
- 13) 'business day' or 'TARGET business day' means any day on which MCAs, RTGS DCAs or T2S DCAs are available for settlement of cash transfer orders;
- 14) 'Business Identifier Code' (BIC) means a code defined by ISO Standard No 9362.
- 15) **'capacity opinion'** means a participant-specific opinion that contains an assessment of a participant's legal capacity to enter into and carry out its obligations;
- 16) 'cash transfer order' means any instruction by a participant or a party acting on its behalf to place at the disposal of a recipient an amount of money from one account by means of a book entry onto another account and which is an ancillary system transfer order, a liquidity transfer order, an instant payment order, a positive recall answer or a payment order;
- 17) 'central bank' (CB) means a Eurosystem CB and/or a connected NCB;
- 18) 'central bank operation' means any payment order or liquidity transfer order initiated by a CB on an MCA opened in any TARGET component system;
- 19) 'connected NCB' means an NCB, other than a euro area NCB, which is connected to TARGET pursuant to a specific agreement;

- 20) 'Contingency Solution' means the functionality that allows CBs and participants to process cash transfer orders in the event that the normal operation of MCAs and/or RTGS DCAs and/or RTGS AS technical accounts is not possible.
- 'credit institution' means either: (a) a credit institution within the meaning of point (1) of Article 4(1) of Regulation (EU) No 575/2013 of the European Parliament and of the Council and section 5(1)(2) of the Danish Financial Business Act (*Lov om finansiel virksomhed*) (Consolidated Act no. 406 of 29 March 2022) that is subject to supervision by a competent authority; or (b) another credit institution within the meaning of Article 123(2) of the Treaty that is subject to scrutiny of a standard comparable to supervision by a competent authority;
- 'credit memorandum balance' (CMB) means a limit set by the TIPS DCA holder for the use of liquidity on the TIPS DCA by a reachable party;
- 'cross-system settlement' means the settlement of AS transfer orders debiting the RTGS AS technical account or a sub-account of a settlement bank of one AS using AS settlement procedure C or D and crediting the RTGS AS technical account or a sub-account of a settlement bank of another AS using AS settlement procedure C or D;
- 24) 'dedicated cash account' (DCA) means an RTGS DCA, a T2S DCA or a TIPS DCA;
- 'deposit facility rate' means 'deposit facility rate' as defined in point (22) of Article 2 of Guideline (EU) 2015/510 (ECB/2014/60);
- 'deposit facility' means 'deposit facility' as defined in point (21) of Article 2 of Guideline (EU) 2015/510 (ECB/2014/60) NOT APPLICABLE TO PARTICIPANTS IN TARGET-Danmark;
- 'euro area NCB' means the national central bank (NCB) of a Member State whose currency is the euro;
- 'European Payments Council's SEPA Instant Credit Transfer (SCT Inst) scheme' or 'SCT Inst scheme' means an automated, open standards scheme providing a set of interbank rules to be complied with by SCT Inst scheme participants, allowing payment services providers in the Single Euro Payments Area (SEPA) to offer an automated SEPA-wide euro instant credit transfer product.
- 29) **'Eurosystem CB'** means the ECB or a euro area national central bank.
- 'event of default' means any impending or existing event, the occurrence of which may threaten the performance by a participant of its obligations under these Conditions or any other rules applying to the relationship between that participant and the participant's CB or any other CB; including:
  - a) where the participant no longer meets the access criteria laid down in Part I, Article
     4, or the requirements laid down in Part I, Article 5(1)(a).
  - b) the opening of insolvency proceedings in relation to the participant.
  - the submission of an application relating to the proceedings referred to in point(b);

- d) the issue by the participant of a written declaration of its inability to pay all or any part of its debts and to meet its obligations arising in relation to intraday credit.
- e) the entry of the participant into a voluntary general agreement with its creditors.
- f) where the participant is, or is deemed by its CB to be, insolvent or unable to pay its debts.
- g) where the participant's credit balance on any of its TARGET accounts, or all or a substantial part of the participant's assets are subject to a freezing order, attachment, seizure or any other procedure that is intended to protect the public interest or the rights of the participant's creditors.
- h) where participation of the participant in another TARGET component system and/or in an AS has been suspended or terminated.
- i) where any material representation or pre-contractual statement made by the participant, or which is implied to have been made by the participant under applicable law is incorrect or untrue;
- j) the assignment of all or a substantial part of the participant's assets.
- 'guarantee funds' means funds provided by participants of an AS to be used in the event of the failure, for whatever reason, of one or more participants to meet their payment obligations in the AS:
- 'insolvency proceedings' means insolvency proceedings within the meaning of Article 2(j) of Directive 98/26/EC of the European Parliament and of the Council of 19 May 1998 on settlement finality in payment and securities settlement systems;
- 'instant payment order' means, in line with the European Payments Council's SEPA Instant Credit Transfer (SCT Inst) scheme, a cash transfer order which can be executed 24 hours a day any calendar day of the year, with immediate or close to immediate settlement and notification to the payer, and which includes: (i) TIPS DCA to TIPS DCA instant payment orders; (ii) TIPS DCA to TIPS AS technical account to TIPS DCA instant payment orders; and (iv) TIPS AS technical account to TIPS DCA instant payment orders; and (iv) TIPS AS technical account to TIPS AS technical account instant payment orders;
- 'instructing party' means an entity which has been designated as such by a TIPS DCA holder or the holder of a TIPS AS technical account, and which is allowed to send instant payment orders or liquidity transfer orders and/or receive instant payment orders or liquidity transfer orders on behalf of that account holder or a reachable party of that account holder;
- 35) **'intraday credit'** means credit extended for a period of less than one business day NOT APPLI-CABLE TO PARTICIPANTS in TARGET-DANMARK;
- 'investment firm' means an investment firm within the meaning of section 10(1)(5) and section 13(2) of the Danish Act on Investment Firms and Investment Services and Activities (Lov om fondsmæglerselskaber og investeringsservice og -aktiviteter) (Act no. 1155 of 8 June 2021), excluding the institutions specified in sections 2 to 18 of Executive Order no. 2021 of 8 November

2021, issued pursuant to section 13(5) of Act on Investment Firms and Investment Services and Activities, provided that the investment firm in question is:

- a) authorised and supervised by a recognised competent authority, which has been designated as such under Directive 2014/65/EC.
- b) authorised to carry out the activities referred to under Annex I to Act on Investment Firms and Investment Services and Activities (Act no. 1155 of 8 June 2021), items 2, 3, 6 and 7 of section A.
- 37) **'Level 3 NCBs'** means Deutsche Bundesbank, Banque de France, Banca d'Italia and Banco de España in their capacity as the CBs developing and operating TARGET for the Eurosystem;
- 'liquidity transfer order' means a cash transfer order to transfer a specified amount of funds for the purpose of liquidity management;
- 39) 'marginal lending facility rate' means 'marginal lending facility rate' as defined in point (57) of Article 2 of Guideline (EU) 2015/510 (ECB/2014/60) NOT APPLICABLE TO PARTICIPANTS IN TARGET-Danmark;
- 'marginal lending facility' means 'marginal lending facility' as defined in point (56) of Article 2 of Guideline (EU) 2015/510 (ECB/2014/60) NOT APPLICABLE to PARTICIPANTS IN TARGET-Danmark;
- 41) 'mobile proxy look-up (MPL) service' means a service which enables TIPS DCA holders, AS using TIPS AS technical accounts and reachable parties who receive from their customers a request to execute an instant payment order in favour of a beneficiary identified with a proxy (e.g. a mobile number) to retrieve from the central MLP repository the corresponding beneficiary IBAN and BIC to be used to credit the relevant TARGET Instant Payment Settlement (TIPS) account;
- 42) 'near instant payment' means a transfer of cash order which complies with the European Payments Council's SEPA Credit Transfer Additional Optional Services (SCT AOS) NL standard for instant processing of SEPA credit transfers or with the European Payment Council's SEPA One-Leg Out Instant Credit Transfer (OCT Inst) Scheme;
- 43) 'network service provider' (NSP) means an undertaking that has been awarded a concession with the Eurosystem to provide connectivity services via the Eurosystem Single Market Infrastructure Gateway to the TARGET services;
- 44) 'non-settled cash transfer order' means a cash transfer order that is not settled on the business day on which it is accepted.
- 45) 'participant' means: (a) an entity that holds at least one MCA and may additionally hold one or more DCAs in TARGET; or (b) an AS.
- **'payee'** means, except when used in Part I, Article 29, a participant whose MCA or DCA will be credited because of a cash transfer order being settled.
- 47) 'payer' means, except when used in Part I, Article 29, a participant whose MCA or DCA will be debited because of a cash transfer order being settled.

- 48) 'payment order' means any instruction by a participant or a party acting on its behalf to place at the disposal of a recipient an amount of money from one account by means of a book entry onto another account and which is not an AS transfer order, a liquidity transfer order, an instant payment order or a positive recall answer;
- 49) 'positive recall answer' means, in line with the European Payments Council's SEPA Instant Credit Transfer (SCT Inst) scheme, a cash transfer order initiated by the receiver of a recall request, in response to a recall request, for the benefit of the sender of that recall request;
- 'public sector body' means an entity within the 'public sector', the latter term as defined in Article 3 of Council Regulation (EC) No 3603/93;
- 'reachable party' means an entity which: (a) holds a Business Identifier Code (BIC); (b) is designated as such by a TIPS DCA holder or by an ancillary system holding a TIPS AS technical account; (c) is a correspondent, customer or branch of a TIPS DCA holder or a participant of an ancillary system; or is a correspondent, customer or branch of a participant of an ancillary system holding a TIPS AS technical account; and (d) is addressable through TIPS and is able to submit cash transfer orders and receive cash transfer orders either via the TIPS DCA holder or an ancillary system holding a TIPS AS technical account, or directly if so authorised by the TIPS DCA holder or by an ancillary system holding a TIPS AS technical account;
- 'Real-time gross settlement ancillary system settlement procedure' (RTGS AS settlement procedure) means one of the range of special, predefined services for the submission and settlement of AS transfer orders related to the settlement of AS on RTGS DCAs, sub-accounts and RTGS AS technical accounts;
- 'Real-time gross settlement ancillary system technical account' (RTGS AS technical account) means an account held by an AS or by the CB in its TARGET component system on behalf of the AS and used in the context of an RTGS AS settlement procedure.
- 'recall request' means a message from an RTGS DCA holder, a TIPS DCA holder or a TIPS AS technical account holder requesting reimbursement of a settled payment order or instant payment order, respectively;
- of: (a) the balance on an MCA or RTGS DCA breaching a predefined floor or ceiling; or (b) insufficient funds being available to cover queued urgent payment orders, AS transfer orders or high priority payment orders on an RTGS DCA;
- 'settlement bank account group' means a list of RTGS DCAs and/or sub-accounts set in the context of the settlement of an ancillary system using RTGS AS settlement procedures;
- 57) **'settlement bank'** means an RTGS DCA holder whose RTGS DCA or sub-account is used to settle AS transfer orders submitted by an AS using RTGS AS settlement procedures;

- 'suspension' means the temporary freezing of the rights and obligations of a participant for a period to be determined by the participant's CB.
- 59) 'TARGET account' means any account opened in a TARGET component system.
- **'TARGET component system'** means any of the CBs' systems that form part of TARGET.
- **'TARGET coordinator'** means a person appointed by the ECB to ensure the daily operational management of TARGET, to manage and coordinate activity in the event of an abnormal situation occurring and to coordinate the dissemination of information to participants.
- 62) 'TARGET Instant Payment Settlement (TIPS) ancillary system settlement procedure' (TIPS AS settlement procedure) means the predefined service for the submission and settlement of liquidity transfer orders and instant payment orders related to settlement of AS on TIPS DCAs and TIPS AS technical accounts.
- 63) 'TARGET Instant Payment Settlement (TIPS) ancillary system technical account' (TIPS AS technical account) means an account held by an AS or by the CB in its TARGET component system on behalf of the AS for use by the AS for the purpose of settling instant payments or near instant payments in its own books.
- **'TARGET settlement manager'** means a person appointed by a Eurosystem CB to monitor the operation of its TARGET component system.
- 65) 'TARGET2-Securities' (T2S) means the set of hardware, software and other technical infrastructure components through which the Eurosystem provides the services to CSDs and Eurosystem CBs that allow core, neutral and borderless settlement of securities transactions on a delivery-versus-payments basis in central bank money.
- 66) **'technical malfunction of TARGET'** means any defect or failure in the technical infrastructure and/or computer systems used by the relevant TARGET component system, or any other event that makes it impossible to execute and complete the processing of cash transfer orders according to the relevant parts of this Guideline in the relevant TARGET component system.