Repurchase Agreement Market Practice

Settlements Working Group

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Document History

Version #	Change Date	Change By	Description of Change	Page
1.0-1.9	2005-2008	Settlements WG	Original US MP documentation	
2.0	09/10/07	Erica Choinski	First Draft of the Repurchase Agreement Market Practice based on previous version of finalized US Repo MPv1.9	
2.1	02/14/08	Erica Choinski	Updated to indicate partial terminations require additional analysis. Reviewed samples and provided some updates.	
2.2	07/31/08	Erica Choinski	Revised for SR2008.	
2.3	08/4/08	Erica Choinski	Updated the examples and format of the document.	
2.4	08/05/08	Erica Choinski	Updated formats and added Effective date to cover.	
2.5	8/13/08	Erica Choinski	Updates following conference call.	
2.6	1/08/09	Erica Choinski	Added MP disclaimer Addition of ISITC Classification codes on sample messages.	
2.7	01/28/09	Co-chairs	Updates to document based on final review with WG Converted to PDF for posting to website	

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1.0 Background

This document is intended to establish the position of the US NMPG (ISITC N.A. - Settlements Working Group) regarding repurchase and reverse repurchase agreement settlement and confirmation market practice between Portfolio Managers and Custodian Banks and/or Accounting Agents in the US markets. This document will also address some outstanding open issues relating to the settlement confirmation process in repo messaging from Custodian Banks to Portfolio Managers.

1.1 Scope

The scope of this document is to define all repurchase and reverse repurchase agreement business practices between the Investment Manager, Custodian Bank, and Accounting Agent. This document covers the following scenarios:

1. Fixed rate and term repurchase agreement.
2. Fixed rate and term reverse repurchase agreement.
3. Fixed rate and open repurchase agreement.
4. Fixed rate and open reverse repurchase agreement.
5. Variable rate open repurchase agreement.
6. Variable rate open reverse repurchase agreement.
7. Re-rates
8. Maturity changes
9. Multiple pieces of collateral
10. Collateral substitutions
11. Cancellations
12. Confirmations

This document will define the business elements and flows for each type of repurchase agreement in context of the actors and roles.

1.2 Future Considerations

1. Additional analysis is required for partial terminations and this document will be updated in the future to incorporate the best practice for partial terminations.
2. Utilization of underlying security as the Repurchase and Reverse Repurchase Agreement Contracts are recognized as an asset. Currently the Security Identifier used is for the collateral and the collateral is a part of the overall contract.
3. Collateral Substitutions need to be defined more clearly in the US Market as the business process is inconsistent.
4. Examples and best practice of Pair-offs to be discussed and updated into the document in future versions.
5. Section 3.0 will later become an appendix to allow additional appendices to be added for ISO20022 Securities Financing message format best practices.

1.3 Definitions

1. Initiation of a repurchase agreement - the party receiving the cash and sending securities collateral (the seller) will always release delivery messages.
2. Initiation of a reverse repurchase agreement - The party receiving the securities collateral and delivering the cash (the buyer) will always release receive messages.
3. Repo deal reference – Reference number providing a single identification of the repo through the agreed upon term.

1.4 Actors and Roles

There are three distinct roles involved in a repurchase and/or reverse repurchase agreement:

- Instructing party – The instructing party is the buyer or seller instructing the initiation of the repurchase/reverse repurchase agreement.
- Sender - a sender sends the message(s) containing the data, but does not necessarily provide the source data or terms of the agreement.
- Recipient - the recipient receives the messages containing the data from the provider.

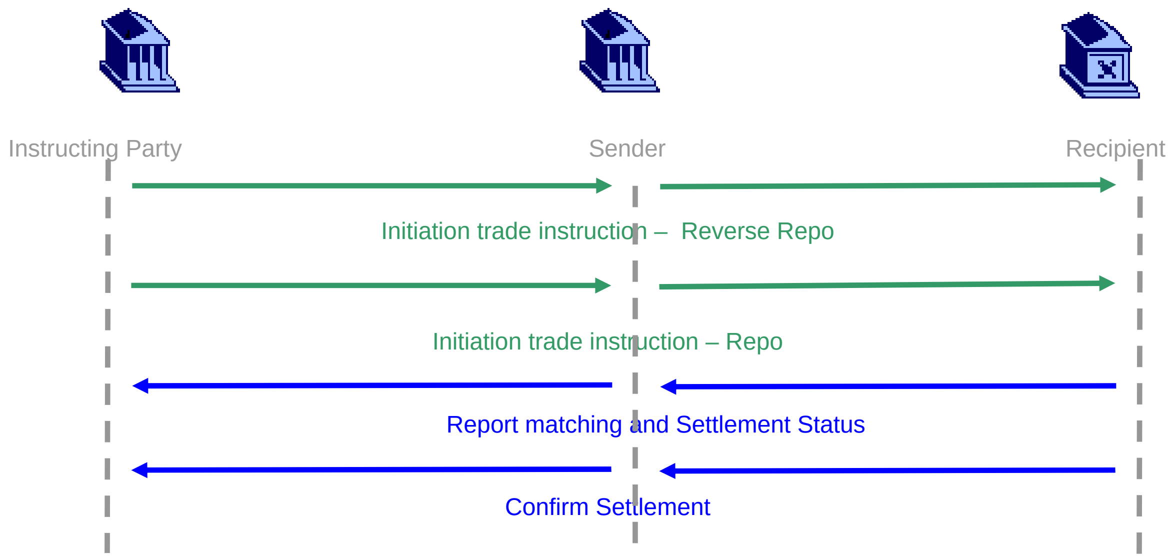
There are multiple actors involved in the process. Each Actor may at time play more than one of the roles outlined above.

Instructing Party	Sender	Recipient
Investment Manager	Investment Manager	Custodian Bank
Prime Broker	Prime Broker	Accounting Agent
	Custodian Bank	Central Securities Depository (CSD)
	Service Provider/Outsourcer	International Central Securities Depository (ICSD)

1.5 Sequence Diagrams

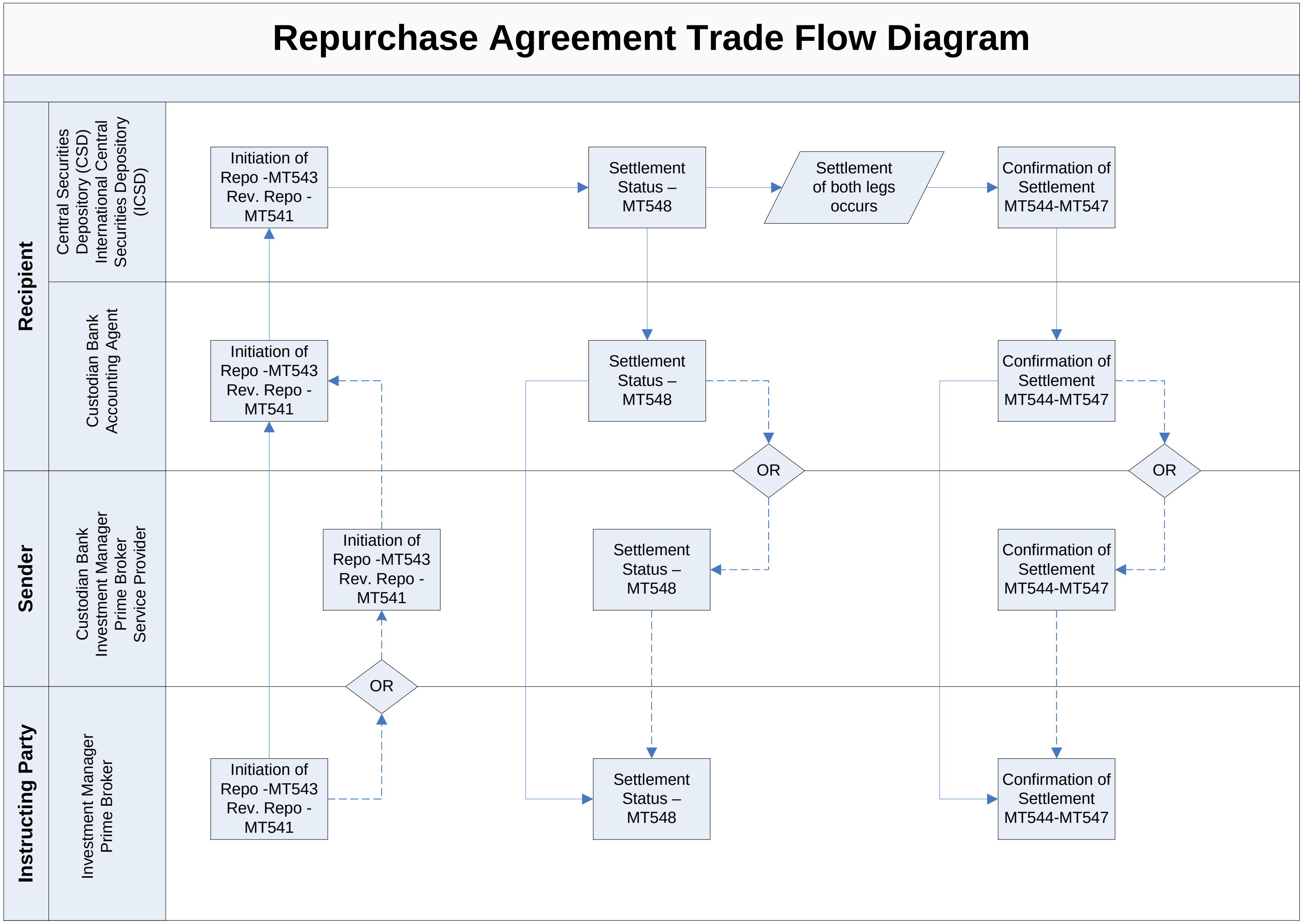
In **green**: Initiation of Repo and Reverse Repurchase Agreements

In **blue**: Settlement Status and confirmation



1.6 Activity Diagram – High Level Trade Flow

- *Note that the settlement of the legs can occur at different times, please see next diagram for securities and cash movements.*



2.0 Business Definition

2.1 Business Data Requirements

Business Element	Comments
Initiation	
Message Reference	Unique transaction ID from sender.
Function of the message	Indicates new or cancel.
Trade Date	ISO 8601 Date
Settlement Date	ISO 8601 Date – Repo opening settlement date.
Security Identifier	ISIN is preferred asset identifier, but CUSIP and SEDOL are also accepted. This identifier is used as the collateral identifier and not the contract.
Price	Collateral market price
Quantity of Financial instrument	Collateral quantity expressed appropriately per instrument type. Refer to US MP guide for instrument type references.
Safekeeping Account	Account number
Repo closing date	Maturity of the agreement
Repurchase Rate type	Fixed rate or variable rate
Accrual Basis	To recalculate the interest amount on the collateral
Repurchase type	Defines activity, repo or reverse repo.
Repo Reference number	Unique identifier for all transactions within the repo lifecycle.
Repurchase Rate	Repurchase rate used to recalculate repurchase amount. This represents the interest rate for the collateral for calculation of interest accrued.
Accrued Interest Amount	Accrued interest amount accrued on the repurchase agreement contract. This may not be known in a variable rate or open repo.
Collateral Indicator	Indicates if there are multiple pieces of collateral.
Repurchase Amount	The cash amount the securities will be repurchased for in the second part of repurchase agreement. This may not be known in a variable rate or open repo. Additional Repurchase Amount needed on each piece of collateral when there are multiple pieces.
Place of Settlement	The depository location where the securities collateral is settling
Broker/Agent details	The delivering or receiving agent in the transaction.
Settlement Amount	Opening amount of repo, the settlement amount of securities that will be sent as collateral.

Open Repo	
Termination indicator	Indicator required to cancel initiation without removing interest accrual history to establish a termination date.
Re-rate and Collateral Substitutions	
Indicators	Indicators required to cancel the initiation without removing interest accrual history to establish a new rate or new piece of collateral.
Accrual period	A start and end date in accrual is required in a rerate scenario. The end of the first rate and the beginning of the second rate is needed for accounting purposes.
Rate Change Date/Time	This is required to provide the starting date/time of the rate change in a re-rate scenario.
Linkages	Linking transactions are required for rerate and Collateral Substitutions.
Confirmations	
Linked reference	A link is required to the original repo instruction.
Effective Settlement Dates	Effective settlement amount of the concerned confirmation for closing date and the repurchase amount.

2.2 Market Practice Rules

2.2.1 General Rules:

In order to avoid confusion, the type of messages used by each party must be consistent. Each party (buyer, seller) should instruct using **one and only one message type** (and its corresponding confirmation message type) to instruct ALL the repo information throughout the WHOLE process.

- The party receiving the cash and delivering securities collateral (the seller) always release delivery messages. This is defined as the initiation of a repurchase agreement. The instructing party is agreeing to purchase the securities back at a future date and time.
- The party receiving the securities collateral and delivering the cash (the buyer) will always release receive messages. This is defined as the initiation of a reverse repurchase agreement. A purchase of securities with an agreement to resell them at a higher price at a specific future date.
- Indicators must be used to identify the type of transaction being instructed, Repo, Reverse Repo, Rerate, Maturity change, etc.

2.2.2 Fixed rate and term repurchase agreement

A fixed rate and term repurchase agreement has a fixed rate and an established maturity date. The initiation message should suffice to settle the opening and closing exchange of securities collateral and cash. The following business elements are required from a Custody perspective:

Message Reference
Function of the message
Trade Date
Settlement Date
Security Identifier
Price
Quantity of Financial instrument
Safekeeping Account
Repo closing date

Repurchase type – this will indicate repurchase agreement.
Repo Reference number
Repurchase Amount
Place of Settlement
Broker/Agent details
Settlement Amount

The following additional business elements are required from an Accounting Agent perspective:
Repurchase Rate type – this will always be fixed.
Accrual Basis
Repurchase Rate
Accrued Interest Amount

2.2.3 Fixed rate and term reverse repurchase agreement

A fixed rate and term reverse repurchase agreement has a fixed rate and an established maturity date. The initiation message should suffice to settle the opening and closing exchange of securities collateral and cash. The following business elements are required from a Custody perspective:
Message Reference
Function of the message
Trade Date
Settlement Date
Security Identifier
Price
Quantity of Financial instrument
Safekeeping Account
Repo closing date
Repurchase type – this will indicate reverse repurchase agreement.
Repo Reference number
Repurchase Amount
Place of Settlement
Broker/Agent details
Settlement Amount

The following additional business elements are required from an Accounting Agent perspective:
Repurchase Rate type – this will always be fixed.
Accrual Basis
Repurchase Rate
Accrued Interest Amount

2.2.4 Fixed rate and open repurchase agreement

A fixed rate open repurchase agreement has a fixed rate and an open maturity date. The initiation message should suffice to settle the opening exchange of securities collateral and cash. A cancellation message is required with a closing date indicator to cancel the initiation instruction to allow for the termination to be instructed. The closing date indicator will serve as an amendment rather than true cancellation as the Accounting Agent will need to maintain the accrual history on the repo. This business process requires two instructions to close. The following business elements are required from a Custody perspective:
Message Reference
Function of the message
Trade Date
Settlement Date
Security Identifier
Price
Quantity of Financial instrument
Safekeeping Account

Repo closing date – This will be Open on the initiation.
Repurchase type – this will indicate repurchase agreement and call.
Repo Reference number – this will allow for all three transactions to be linked to the same repo deal.
Repurchase Amount
Place of Settlement
Broker/Agent details
Settlement Amount

The following additional business elements are required from an Accounting Agent perspective:
Repurchase Rate type – this will always be fixed.
Accrual Basis
Repurchase Rate
Accrued Interest Amount

2.2.5 Fixed rate and open reverse repurchase agreement

A fixed rate open reverse repurchase agreement has a fixed rate and an open maturity date. The initiation message should suffice to settle the opening exchange of securities collateral and cash. A cancellation message is required with a closing date indicator to cancel the initiation instruction to allow for the termination to be instructed. The closing date indicator will serve as an amendment rather than true cancellation as the Accounting Agent will need to maintain the accrual history on the repo. This business process requires two instructions to close. The following business elements are required from a Custody perspective:
Message Reference
Function of the message
Trade Date
Settlement Date
Security Identifier
Price
Quantity of Financial instrument
Safekeeping Account
Repo closing date – this will be Open on the initiation.
Repurchase type – this will indicate reverse repurchase agreement and call.
Repo Reference number – this will allow for all three transactions to be linked to the same reverse repo deal.
Repurchase Amount
Place of Settlement
Broker/Agent details
Settlement Amount

The following additional business elements are required from an Accounting Agent perspective:
Repurchase Rate type – this will always be fixed.
Accrual Basis
Repurchase Rate
Accrued Interest Amount

2.2.6 Variable rate open repurchase agreement

A variable rate open repurchase agreement has a variable rate and an open maturity date. The initiation message should suffice to settle the opening exchange of securities collateral and cash. A cancellation message is required with a closing date indicator to cancel the initiation instruction to allow for the termination to be instructed. The closing date indicator will serve as an amendment rather than true cancellation as the Accounting Agent will need to maintain the accrual history on the repo. Additionally, the rate will change throughout the repo life; this business practice is called a rerate. These rate changes will require a cancellation using a rate indicator and a new instruction with the revised rate also using the rate indicator. This business process requires multiple instructions to close. The following business elements are required from a Custody perspective:
Message Reference
Function of the message

Trade Date
Settlement Date
Security Identifier
Price
Quantity of Financial instrument
Safekeeping Account
Repo closing date – this will be open on the initiation and until a call occurs.
Repurchase type – this will indicate repurchase agreement, call, and rerate.
Repo Reference number – this will allow for multiple transactions to be linked to the same repo deal.
Repurchase Amount
Place of Settlement
Broker/Agent details
Settlement Amount

The following additional business elements are required from an Accounting Agent perspective:
Repurchase Rate type – this will always be variable.
Accrual Basis
Repurchase Rate – this will change over the life of the repo.
Accrued Interest Amount

2.2.7 Variable rate open reverse repurchase agreement

A variable rate open reverse repurchase agreement has a variable rate and an open maturity date. The initiation message should suffice to settle the opening exchange of securities collateral and cash. A cancellation message is required with a closing date indicator to cancel the initiation instruction to allow for the termination to be instructed. The closing date indicator will serve as an amendment rather than true cancellation as the Accounting Agent will need to maintain the accrual history on the reverse repo. Additionally, the rate will change throughout the repo life; this business practice is called a rerate. These rate changes will require a cancellation using a rate indicator and a new instruction with the revised rate also using the rate indicator. This business process requires multiple instructions to close. The following business elements are required from a Custody perspective:
Message Reference
Function of the message
Trade Date
Settlement Date
Security Identifier
Price
Quantity of Financial instrument
Safekeeping Account
Repo closing date – this will be Open on the initiation and until a call occurs.
Repurchase type – this will indicate repurchase agreement, call, and rerate.
Repo Reference number – this will allow for multiple transactions to be linked to the same reverse repo deal.
Repurchase Amount
Place of Settlement
Broker/Agent details
Settlement Amount

The following additional business elements are required from an Accounting Agent perspective:
Repurchase Rate type – this will always be variable.
Rate Change Date/Time
Accrual Basis
Repurchase Rate – this will change over the life of the reverse repo.
Accrued Interest Amount

2.2.8 Re-rates

As noted above in the variable rate open repo and reverse repo agreements, a rerate is a change in the repurchase rate in a repurchase agreement. In this scenario, the interest begins accruing at one rate and changes to a new rate during a point in the agreement. This type of transaction primarily impacts the Accounting Agent. To facilitate a rerate the initiation must be cancelled using a rerate indicator. This cancellation acts as an amend transaction and the new instruction should also contain the rate indicator as well as the rerate date and time. This will allow for changes to be made to the rate without truly cancelling the instruction since the accrual will need to be kept on the Accounting Agents books. An accrual start and end date will be needed to indicate the start of the new rate and end of the previous rate.

Note that a separate instruction is needed to change maturity date; only one business process can be met with a cancellation and new instruction.

2.2.9 Maturity changes

Maturity changes can occur on open and termed repurchase and reverse repurchase agreements. In either case, the call indicator is required on the cancellation and new instruction for accounting purposes.

Note that a separate instruction is needed to change the repurchase rate; only one business process can be met with a cancellation and new instruction.

The following business elements are required from a Custody perspective:

- Message Reference
- Function of the message
- Trade Date
- Settlement Date
- Security Identifier
- Price
- Quantity of Financial instrument
- Safekeeping Account
- Repo closing date – this will be Open on the initiation and until a call occurs.
- Repurchase type – this will indicate repurchase agreement/reverse repurchase agreement call.
- Repo Reference number – this will allow for multiple transactions to be linked to the same repo/reverse repo deal.
- Repurchase Amount
- Place of Settlement
- Broker/Agent details
- Settlement Amount

The following additional business elements are required from an Accounting Agent perspective:

- Repurchase Rate type – this could be fixed or variable and other business scenarios could apply
- Accrual Basis
- Repurchase Rate
- Accrued Interest Amount

2.2.10 Multiple pieces of collateral

A repurchase/reverse repurchase agreement with multiple pieces of collateral must have a collateral count to indicate how many pieces of collateral are linked to the agreement. Multiple transactions are required to facilitate this process. Additionally, the following business elements are required:

- Message Reference
- Function of the message
- Trade Date
- Settlement Date
- Security Identifier
- Price
- Quantity of Financial instrument

Collateral count
Safekeeping Account
Repo closing date
Repurchase type
Repo Reference number – this will allow for multiple transactions to be linked to the same repo/reverse repo deal.
Repurchase Amount – This will be the total of all pieces of collateral.
Repurchase Amount per piece of Collateral
Place of Settlement
Broker/Agent details
Settlement Amount

The following additional business elements are required from an Accounting Agent perspective:
Repurchase Rate type
Accrual Basis
Repurchase Rate
Accrued Interest Amount – this will be the accrued interest on the overall contract and will be the same across all pieces of collateral.

2.2.11 Collateral substitutions

A collateral substitution occurs when the account owner requests from the account servicer to change the securities collateral within a repurchase agreement. This business process requires a cancellation and new instruction utilizing the collateral substitution indicator. The repurchase/reverse repurchase agreement original contract terms should apply to the instructions when substitutions occur.

2.2.12 Cancellations

A cancellation instruction will omit the repurchase/reverse repurchase agreement from the Custodian bank and the Accounting agent. There is a distinction between a true cancellation and a cancellation with intent to change business process elements, as the accounting agent is tracking the accrued interest. In addition, the following guidelines should be followed:

Before settlement of the opening:
Everything can be modified.
After settlement of the opening and before settlement of the closing:
Only closing information may be modified (two leg transaction sequence).

2.2.13 Confirmations

A confirmation message corresponding to the effective movements of securities against cash is to be sent for each instruction.

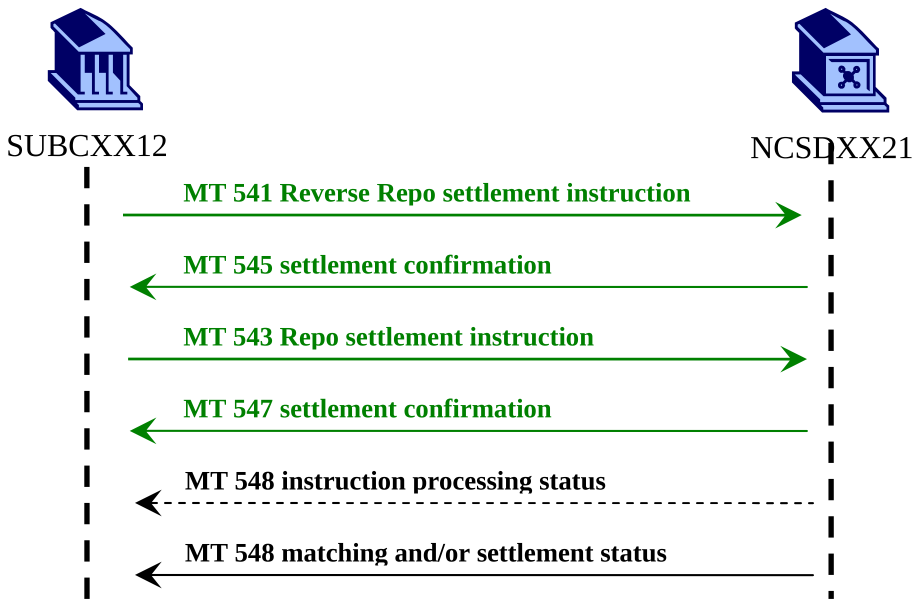
1. The Seller (Collateral out) will instruct confirmation on the repurchase agreement details, two instructions will be required, one for the settlement of the opening leg and one for the closing settlement.
2. The Buyer (Collateral in) will instruct confirmation on the reverse repurchase agreement details, two instructions will be required, one for the settlement of the opening leg and one for the closing settlement.

3.0 Appendix

ISITC NA recommends the use of ISO15022 messages for the instruction of repurchase and reverse repurchase agreements.

3.1 - ISO15022

1 Message Sequence Diagram



2 Message Usage Rules

The section below will give the message type and defining elements of the repurchase/reverse repurchase agreement. *Please note that these fields are just identifying the critical fields for the specified business process and do not show all SWIFT message elements. For the complete message please refer to the appendix at the end of this document.*

2.1 Fixed rate and term repurchase agreement

To instruct a fixed rate and term repurchase agreement an MT543- deliver versus payment should be used.

:98A::TERM//YYYYMMDD
:22F::RERT//FIXE
:20C::REPO//REPOREF
:22F::SETR//REPU

2.2 Fixed rate and term reverse repurchase agreement

To instruct a fixed rate and term reverse repurchase agreement an MT541 – receive versus payment should be used.

:98A::TERM//YYYYMMDD
:22F::RERT//FIXE
:20C::REPO//REPOREF
:22F::SETR//RVPO

2.3 Fixed rate and open repurchase agreement

To instruct a fixed rate open repurchase agreement an MT543- deliver versus payment should be used.

:23G:NEWM
:98B::TERM//OPEN
:22F::RERT//FIXE
:20C::REPO//REPOREF
:22F::SETR//REPU

2.4 Fixed rate and open reverse repurchase agreement

To instruct a fixed rate and term reverse repurchase agreement an MT541 – receive versus payment should be used.

:23G:NEWM
:98B::TERM//OPEN
:22F::RERT//FIXE
:20C::REPO//REPOREF
:22F::SETR//RVPO

2.5 Variable rate open repurchase agreement

To instruct a variable rate open repurchase agreement an MT543- versus payment should be used. The repo reference number should be consistent through all of the events in the repo, the senders reference will change with each instruction.

:23G:NEWM
:98B::TERM//OPEN
:22F::RERT//VARI
:20C::REPO//REPOREF
:22F::SETR//REPU

2.6 Variable rate open reverse repurchase agreement

To instruct a variable rate open reverse repurchase agreement an MT541 – receive versus payment should be used. The repo reference number should be consistent through all of the events in the reverse repurchase agreement, the senders reference will change with each instruction.

:23G:NEWM
:98B::TERM//OPEN
:22F::RERT//VARI
:20C::REPO//REVREPOREF
:22F::SETR//RVPO

2.7 Re-rates

Rerate scenarios require two instructions, the first is a cancellation instruction using :22F::REPT//RATE. The second is a new instruction that will use :22F::REPT//RATE and will have the new rate. The end date of the first rate and the beginning date for the new rate should be populated in :98A::RERA//.

Initiation:
:16R:REPO
:98B::TERM//OPEN
:22F::RERT//VARI
:20C::REPO//REPRERATE1
:92A::REPO//4,33
:22F::SETR//REPU

Cancellation for rerate must use RATE as indicator:
:23G:CANC
98B::TERM//OPEN

:22F::RERT//VARI
:20C::REPO//REPRERATE1
:92A::REPO//4,33
:22F::SETR//REPU
:22F::REPT//RATE

Revised rate instruction must use RATE as indicator and RERA must be used to indicate end of first rate and beginning of second rate:
:23G:NEWM
:98B::TERM//OPEN
:98A::RERA//YYYYMMDD
:22F::RERT//VARI
:20C::REPO//REPRERATE1
:92A::REPO//4,66
:22F::SETR//REPU
:22F::REPT//RATE

2.7.1 Variable rate open repurchase agreement with a Re-Rate

To instruct a variable rate open repurchase agreement an MT543- versus payment should be used. The repo reference number should be consistent through all of the events in the repo, the senders reference will change with each instruction.

Initiation:
:16R:REPO
:98B::TERM//OPEN
:22F::RERT//VARI
:20C::REPO//REPRERATE1
:92A::REPO//4,33
:22F::SETR//REPU

Cancellation for rerate must use RATE as indicator:
:23G:CANC
98A::TERM//OPEN
:22F::RERT//VARI
:20C::REPO//REPRERATE1
:92A::REPO//4,33
:22F::SETR//REPU

:22F::REPT//RATE

Revised rate instruction must use RATE as indicator:
:23G:NEWM
:98B::TERM//OPEN
:98A::RERA//YYYYMMDD
:22F::RERT//VARI
:20C::REPO//REPRERATE1
:92A::REPO//4,66
:22F::SETR//REPU
:22F::REPT//RATE

2.7.2 . Variable rate open reverse repurchase agreement with a Re-rate

To instruct a variable rate open reverse repurchase agreement with a Rerate an MT541 – receive versus payment should be used. The repo reference number should be consistent through all of the events in the reverse repurchase agreement, the senders reference will change with each instruction.

Initiation:
:23G:NEWM
:98B::TERM//OPEN
:22F::RERT//VARI
:20C::REPO//REVREPORERT
:92A::REPO//4,33
:22F::SETR//RVPO

Cancellation for rerate must use RATE as indicator:
:23G:CANC
:98B::TERM//OPEN
:22F::RERT//VARI
:20C::REPO// REVREPORERT
:92A::REPO//4,33
:22F::SETR//RVPO
:22F::REPT//RATE

Revised rate instruction must use RATE as indicator:
:23G:NEWM
:98B::TERM//OPEN
:98A::RERA//YYYYMMDD
:22F::RERT//VARI
:20C::REPO// REVREPORERT
:92A::REPO//4,66
:22F::SETR//RVPO
:22F::REPT//RATE

2.8 Maturity changes

Maturity changes require two messages, the first is a cancellation instruction using :22F::REPT//CALL. The second is a new instruction that will use :22F::REPT//CALL and will have the new date. This applies to change the maturity from OPEN to a date as well as when there is a maturity date and it needs to be amended.

The following represents a repurchase or reverse repurchase agreement with a maturity change:
Initiation:
:16R:REPO
:98B::TERM//OPEN

:22F::RERT//VARI
:20C::REPO//MATURITY1
:92A::REPO//4,33
:22F::SETR//REPU or :22F::SETR//RVPO

Cancellation for rerate must use CALL as indicator:
:23G:CANC
98B::TERM//OPEN
:22F::RERT//VARI
:20C::REPO///MATURITY1
:92A::REPO//4,33
:22F::SETR//REPU or :22F::SETR//RVPO
:22F::REPT//CALL

Revised rate instruction must use RATE as indicator and CALL must be used to indicate end of first rate and beginning of second rate:
:23G:NEWM
:98B::TERM//OPEN
:98A::RERA//YYYYMMDD
:22F::RERT//VARI
:20C::REPO///MATURITY1
:92A::REPO//4,66
:22F::SETR//REPU or :22F::SETR//RVPO
:22F::REPT//CALL

2.9 Multiple pieces of collateral

Repurchase/Reverse repurchase agreements with multiple pieces of collateral will need to include the following message elements:

:20C::REPO//REPO12345
:99B::TOCO//002
:19A::TRTE//USD10010000,
:19A::ACRU//USD196779,
:19A::TAPC//USD9996779,

2.10 Collateral substitutions

Collateral substitutions require two messages, the first is a cancellation instruction using :22F::REPT//CADJ. The second is a new instruction that will use :22F::REPT//CADJ and will have the new collateral with revised amounts.

This should be discussed further as it is not clear how these are executed in the US Market.

2.11 Cancellations

Cancellation instructions are only true cancellations when no indicator is present one the message. A true cancellation will remove the repo/reverse repo deal from the Custodian bank and Accounting Agents records. When an indicator is present in :22F::REPT// the information is used as an amendment to maintain the historical accounting information.

2.12 Confirmations

The following table presents the appropriate message for the confirmation instructions:

REPO COLLATERAL MESSAGE FLOW TABLE

SIDE	Opening Settlement Instruction MT	Opening Settlement Confirmation MT	Closing Settlement Confirmation MT (return of collateral)
BUYER: Reverse Repo *(Only used in collateral substitutions)*	MT540	MT544	MT546
BUYER: Reverse Repo (Collateral In)	MT541	MT545	MT547
SELLER: Repo *(Only used in collateral substitutions)*	MT542	MT546	MT544
SELLER: Repo (Collateral Out)	MT543	MT547	MT545

The message structure section below provides the formats for each type of repurchase/reverse repurchase agreement referenced above.

3 Message Structure and Requirements

3.1 Repurchase and Reverse Repurchase Initiation Message Structure

The Repurchase Agreement Market Practice should adhere to the ISO 15022 messaging standard. The message structure is provided below.

Index	Message Item	Definition	Mult.	Syntax	Usage Rule / Comments
1.0	Message Type	MT540 – Receive free MT541 – Receive against payment MT542 – Receive free MT543 – Deliver against payment	NA	ISO15022	MT540/MT541 are used to instruct a reverse repurchase agreement. MT542/MT543 are used to instruct a repurchase agreement.
ISO 15022 Message structure per SWIFT User Handbook					

M/O	Tag	Qualifier	Generic Field Name	Detailed Field Name	Content Options	Comments
M	16R			Start of Block	GENL	
M	20C	SEME	Reference	Sender's Message Reference	:4!c//16x	
M	23G			Function of the Message	4!c[/4!c]	
O	98a	PREP	Date/Time	Preparation Date/Time	A or C	
----->						
O	99B	4!c	Number Count	(See qualifier description)	:4!c//3!n	
-----|						
----->Repetitive Optional Subsequence A1 Linkages						
M	16R			Start of Block	LINK	
O	22F	LINK	Indicator	Linkage Type Indicator	:4!c/[8c]/4!c	
M	20C	4!c	Reference	(see qualifier description)	:4!c//16x	
O	36B	PAIR	Quantity of Financial Instrument	Quantity of Financial Instrument to be Paired-off	:4!c//4!c/15d	
M	16S			End of Block	LINK	
-----| End of Subsequence A1 Linkages						
M	16S			End of Block	GENL	
End of Sequence A General Information						
Mandatory Sequence B Trade Details						
M	16R			Start of Block	TRADDET	
O	94B	TRAD	Place	Place of Trade	:4!c/[8c]/4!c [/30x]	
----->						
M	98a	4!c	Date/Time	(see qualifier description)	A, B, C, or E	
-----|						

<table>
<tr><th>M/O</th><th>Tag</th><th>Qualifier</th><th>Generic Field Name</th><th>Detailed Field Name</th><th>Content Options</th><th>Comments</th></tr>
<tr><td>O</td><td>90a</td><td>DEAL</td><td>Price</td><td>Deal Price</td><td>A or B</td><td></td></tr>
<tr><td>O</td><td>99A</td><td>DAAC</td><td>Number Count</td><td>Number of Days Accrued</td><td>:4!c//[N]3!n</td><td></td></tr>
<tr><td>M</td><td>35B</td><td></td><td></td><td>Identification of the Financial Instrument</td><td>[ISIN1!e12!c] [4*35x]</td><td></td></tr>
<tr><td colspan="7">Optional Subsequence B1 Financial Instrument Attributes</td></tr>
<tr><td>M</td><td>16R</td><td></td><td></td><td>Start of Block</td><td>FIA</td><td></td></tr>
<tr><td>O</td><td>94B</td><td>PLIS</td><td>Place</td><td>Place of Listing</td><td>:4!c/[8c]/4!c [/30x]</td><td></td></tr>
<tr><td colspan="7">-----></td></tr>
<tr><td>O</td><td>22F</td><td>4!c</td><td>Indicator</td><td>(see qualifier description)</td><td>:4!c/[8c]/4!c</td><td></td></tr>
<tr><td colspan="7">-----|</td></tr>
<tr><td colspan="7">-----></td></tr>
<tr><td>O</td><td>12a</td><td>4!c</td><td>Type of Financial Instrument</td><td>(see qualifier description)</td><td>A, B, or C</td><td></td></tr>
<tr><td colspan="7">-----|</td></tr>
<tr><td>O</td><td>11A</td><td>DENO</td><td>Currency</td><td>Currency of Denomination</td><td>:4!c//3!a</td><td></td></tr>
<tr><td colspan="7">-----></td></tr>
<tr><td>O</td><td>98A</td><td>4!c</td><td>Date</td><td>(see qualifier description)</td><td>:4!c//8!n</td><td></td></tr>
<tr><td colspan="7">-----|</td></tr>
<tr><td colspan="7">-----></td></tr>
<tr><td>O</td><td>92A</td><td>4!c</td><td>Rate</td><td>(see qualifier description)</td><td>:4!c//[N]15d</td><td></td></tr>
<tr><td colspan="7">-----|</td></tr>
<tr><td colspan="7">-----></td></tr>
<tr><td>O</td><td>90a</td><td>4!c</td><td>Price</td><td>(see qualifier description)</td><td>A or B</td><td></td></tr>
<tr><td colspan="7">-----|</td></tr>
<tr><td colspan="7">-----></td></tr>
<tr><td>O</td><td>36B</td><td>4!c</td><td>Quantity of Financial Instrument</td><td>(see qualifier description)</td><td>:4!c//4!c/15d</td><td></td></tr>
<tr><td colspan="7">-----|</td></tr>
<tr><td colspan="7">-----></td></tr>
<tr><td>O</td><td>35B</td><td></td><td></td><td>Identification of the Financial Instrument</td><td>[ISIN1!e12!c] [4*35x]</td><td></td></tr>
<tr><td colspan="7">-----|</td></tr>
<tr><td>O</td><td>70E</td><td>FIAN</td><td>Narrative</td><td>Financial Instrument Attribute Narrative</td><td>:4!c//10*35x</td><td></td></tr>
<tr><td>M</td><td>16S</td><td></td><td></td><td>End of Block</td><td>FIA</td><td></td></tr>
<tr><td colspan="7">End of Subsequence B1 Financial Instrument Attributes</td></tr>
<tr><td colspan="7">-----></td></tr>
<tr><td>O</td><td>22F</td><td>4!c</td><td>Indicator</td><td>(see qualifier description)</td><td>:4!c/[8c]/4!c</td><td></td></tr>
</table>

M/O	Tag	Qualifier	Generic Field Name	Detailed Field Name	Content Options	Comments
-----|						
O	11A	FXIS FSIB	Currency	Currency to Sell or Currency to Buy	:4!c//3!a	540/541 is Currency to Sell FXIS 542/543 is Currency to Buy FXIB
----->						
O	25D	4!c	Status	(see qualifier description)	:4!c/[8c]/4!c	
-----|						
----->						
O	70E	4!c	Narrative	(see qualifier description)	:4!c//10*35x	
-----|						
M	16S			End of Block	TRADDET	
End of Sequence B Trade Details						
-----> **Mandatory Repetitive Sequence C Financial Instrument/Account**						
M	16R			Start of Block	FIAC	
----->						
M	36B	SETT	Quantity of Financial Instrument	Quantity of Financial Instrument to be Settled	:4!c//4!c/15d	
-----|						
O	19A	SETT	Amount	Settlement Amount	:4!c//[N]3!a15d	
O	70D	DENC	Narrative	Denomination Choice	:4!c//6*35x	
----->						
O	13B	CERT	Number Identification	Certificate Number	:4!c/[8c]/30x	
-----|						
O	95a	ACOW	Party	Account Owner	P or R	
----->						
M	97a	4!c	Account	(see qualifier description)	A or B	
-----|						
O	94a	SAFE	Place	Place of Safekeeping	B, C, or F	
-----> **Optional Repetitive Subsequence C1 Quantity Breakdown**						
M	16R			Start of Block	BREAK	
O	13a	LOTS	Number Identification	Lot Number	A or B	
O	36B	LOTS	Quantity of Financial Instrument	Quantity of Financial Instrument In The Lot	:4!c//4!c/15d	
O	98a	LOTS	Date/Time	Lot Date/Time	A, C, or E	
O	90a	LOTS	Price	Book/Lot Price	A or B	
O	22F	PRIC	Indicator	Type of Price Indicator	:4!c/[8c]/4!c	

M/O	Tag	Qualifier	Generic Field Name	Detailed Field Name	Content Options	Comments
M	16S			End of Block	BREAK	
-----| **End of Subsequence C1 Quantity Breakdown**						
M	16S			End of Block	FIAC	
-----| **End of Sequence C Financial Instrument/Account**						
Optional Sequence D Two Leg Transaction Details						
M	16R			Start of Block	REPO	This Sequence is required for Repurchase and Reverse repurchase agreements, this is the start of the second leg sequence.
----->						
O	98a	4!c	Date/Time	(see qualifier description)	A, B, or C	TERM – Closing Date/Time, or maturity of the agreement RERA - Rate Change Date/Time, required for re-rates.
-----|						
----->						
O	22F	4!c	Indicator	(see qualifier description)	:4!c/[8c]/4!c	RERT - Rate Type MICO - Method of Interest Computation Indicator REVA - Revaluation Indicator LEGA - Legal Framework Indicator
-----|						
----->						
O	20C	4!c	Reference	(see qualifier description)	:4!c//16x	REPO – Transaction Reference SECO - Second Leg Reference
-----|						
----->						
O	92a	4!c	Rate	(see qualifier description)	A, C, or F	PRIC - Pricing Rate REPO – Repurchase Rate RSPR – Spread Rate SHAI – Securities Haircut SLMG – Stock Loan Margin VASU – Variable Rate support
-----|						
----->						
O	99B	4!c	Number Count	(see qualifier description)	:4!c//3!n	CADE – Transaction Call Delay TOCO - Total Number of Collateral Instructions
-----|						
----->						

M/O	Tag	Qualifier	Generic Field Name	Detailed Field Name	Content Options	Comments
O	19A	4!c	Amount	(see qualifier description)	:4!c//[N]3!a15d	ACRU – Accrued Interest Amount DEAL – Deal Amount FORF – Forfeit Amount REPP – Premium Amount TAPC – Termination Amount per Piece of Collateral TRTE - Termination Transaction Amount
-----|						
O	70C	SECO	Narrative	Second Leg Narrative	:4!c//4*35x	SECO – Second Leg Narrative
M	16S			End of Block	REPO	
End of Sequence D Two Leg Transaction Details						
Mandatory Sequence E Settlement Details						
M	16R			Start of Block	SETDET	
----->						
M	22F	4!c	Indicator	(see qualifier description)	:4!c/[8c]/4	REPO RVPO
-----|						
-----> **Mandatory Repetitive Subsequence E1 Settlement Parties**						
M	16R			Start of Block	SETPRTY	
----->						
M	95a	4!c	Party	(see qualifier description)	C, P, Q, R, or S	
-----|						
O	97a	SAFE	Account	Safekeeping Account	A or B	
O	98a	PROC	Date/Time	Processing Date/Time	A or C	
O	20C	PROC	Reference	Processing Reference	:4!c//16x	
----->						
O	70a	4!c	Narrative	(see qualifier description)	C, D, or E	
-----|						
M	16S			End of Block	SETPRTY	
-----| **End of Subsequence E1 Settlement Parties**						
-----> **Optional Repetitive Subsequence E2 Cash Parties**						
M	16R			Start of Block	CSHPRTY	
----->						
M	95a	4!c	Party	(see qualifier description)	P, Q, R, or S	
-----|						
----->						
O	97A	4!c	Account	(see qualifier description)	:4!c//35x	

M/O	Tag	Qualifier	Generic Field Name	Detailed Field Name	Content Options	Comments
-----|						
----->						
O	70a	4!c	Narrative	(see qualifier description)	C, D, or E	
-----|						
M	16S			End of Block	CSHPRTY	
-----| End of Subsequence E2 Cash Parties						
-----> Mandatory Repetitive Subsequence E3 Amount						
M	16R			Start of Block	AMT	
----->						
O	17B	4!c	Flag	(see qualifier description)	:4!c//1!a	
-----|						
----->						
M	19A	4!c	Amount	(see qualifier description)	:4!c//[N]3!a15d	
-----|						
O	92B	EXCH	Rate	Exchange Rate	:4!c//3!a/3!a/15d	
M	16S			End of Block	AMT	
-----| End of Subsequence E3 Amount						
M	16S			End of Block	SETDET	
End of Sequence E Settlement Details						
-----> Optional Repetitive Sequence F Other Parties						
M	16R			Start of Block	OTHRPRTY	
----->						
M	95a	4!c	Party	(see qualifier description)	C, P, Q, R, or S	
-----|						
----->						
O	97A	4!c	Account	(see qualifier description)	:4!c//35x	
-----|						
----->						
O	70a	4!c	Narrative	(see qualifier description)	C, D, or E	
-----|						
O	20C	PROC	Reference	Processing Reference	:4!c//16x	
M	16S			End of Block	OTHRPRTY	
-----| End of Sequence F Other Parties						

M = Mandatory, O = Optional

3.2 Repurchase and Reverse Repurchase Settlement Confirmation Message Structure

Index	Message Item	Definition	Mult.	Syntax	Usage Rule / Comments
1.0	Message Type	MT544 – Settlement Confirmation for a Receive free MT545 – Settlement Confirmation for a Receive against payment MT546 – Settlement Confirmation for a Receive free MT547 – Settlement Confirmation for a Deliver against payment	NA	ISO15022	MT544/MT545 are used to confirm settlement of a reverse repurchase agreement. MT546/MT547 are used to confirm settlement of a repurchase agreement.

ISO 15022 Message structure per SWIFT User Handbook

M/O	Tag	Qualifier	Generic Field Name	Detailed Field Name	Content Options	Comments
M	16R			Start of Block	GENL	
M	20C	SEME	Reference	Sender's Message Reference	:4!c//16x	
M	23G			Function of the Message	4!c[/4!c]	
O	98a	PREP	Date/Time	Preparation Date/Time	A or C	
----->						
O	22a	4!c	Indicator	(see qualifier description)	F or H	
-----|						
----->**Repetitive Optional Subsequence A1 Linkages**						
M	16R			Start of Block	LINK	
O	22F	LINK	Indicator	Linkage Type Indicator	:4!c/[8c]/4!c	
O	13a	LINK	Number Identification	Linked Message	A or B	
M	20C	4!c	Reference	(see qualifier description)	:4!c//16x	
M	16S			End of Block	LINK	
-----| **End of Subsequence A1 Linkages**						
M	16S			End of Block	GENL	
End of Sequence A General Information						
Mandatory Sequence B Trade Details						
M	16R			Start of Block	TRADDET	
O	94B	TRAD	Place	Place of Trade	:4!c/[8c]/4!c [/30x]	
----->						
M	98a	4!c	Date/Time	(see qualifier description)	A, B, C, or E	
-----|						
O	90a	DEAL	Price	Deal Price	A or B	

M/O	Tag	Qualifier	Generic Field Name	Detailed Field Name	Content Options	Comments
O	99A	DAAC	Number Count	Number of Days Accrued	:4!c//[N]3!n	
M	35B			Identification of the Financial Instrument	[ISIN1!e12!c][4*35x]	
Optional Subsequence B1 Financial Instrument Attributes						
M	16R			Start of Block	FIA	
O	94B	PLIS	Place	Place of Listing	:4!c/[8c]/4!c [/30x]	
----->						
O	22F	4!c	Indicator	(see qualifier description)	:4!c/[8c]/4!c	
-----|						
----->						
O	12a	4!c	Type of Financial Instrument	(see qualifier description)	A, B, or C	
-----|						
O	11A	DENO	Currency	Currency of Denomination	:4!c//3!a	
----->						
O	98A	4!c	Date	(see qualifier description)	:4!c//8!n	
-----|						
----->						
O	92A	4!c	Rate	(see qualifier description)	:4!c//[N]15d	
-----|						
----->						
O	13a	4!c	Number Identification	(see qualifier description)	A or B	
-----|						
----->						
O	17B	4!c	Flag	(see qualifier description)	:4!c//1!a	
-----|						
----->						
O	90a	4!c	Price	(see qualifier description)	A or B	
-----|						
O	70E	FIAN	Narrative	Financial Instrument Attribute Narrative	:4!c//10*35x	
O	36B	4!c	Quantity of Financial Instrument	(see qualifier description)	:4!c//4!c/15d	
-----|						
----->						
O	35B			Identification of the Financial Instrument	[ISIN1!e12!c] [4*35x]	
-----|						

<table>
<tr><th>M/O</th><th>Tag</th><th>Qualifier</th><th>Generic Field Name</th><th>Detailed Field Name</th><th>Content Options</th><th>Comments</th></tr>
<tr><td>O</td><td>70E</td><td>FIAN</td><td>Narrative</td><td>Financial Instrument Attribute Narrative</td><td>:4!c//10*35x</td><td></td></tr>
<tr><td>M</td><td>16S</td><td></td><td></td><td>End of Block</td><td>FIA</td><td></td></tr>
<tr><td colspan="7">End of Subsequence B1 Financial Instrument Attributes</td></tr>
<tr><td colspan="7">-----></td></tr>
<tr><td>O</td><td>22F</td><td>4!c</td><td>Indicator</td><td>(see qualifier description)</td><td>:4!c/[8c]/4!c</td><td></td></tr>
<tr><td colspan="7">-----|</td></tr>
<tr><td colspan="7">-----></td></tr>
<tr><td>O</td><td>70E</td><td>4!c</td><td>Narrative</td><td>(see qualifier description)</td><td>:4!c//10*35x</td><td></td></tr>
<tr><td colspan="7">-----|</td></tr>
<tr><td>M</td><td>16S</td><td></td><td></td><td>End of Block</td><td>TRADDET</td><td></td></tr>
<tr><td colspan="7">End of Sequence B Trade Details</td></tr>
<tr><td colspan="7">-----> Mandatory Repetitive Sequence C Financial Instrument/Account</td></tr>
<tr><td>M</td><td>16R</td><td></td><td></td><td>Start of Block</td><td>FIAC</td><td></td></tr>
<tr><td colspan="7">-----></td></tr>
<tr><td>M</td><td>36B</td><td>SETT</td><td>Quantity of Financial Instrument</td><td>Quantity of Financial Instrument to be Settled</td><td>:4!c//4!c/15d</td><td></td></tr>
<tr><td colspan="7">-----|</td></tr>
<tr><td colspan="7">-----></td></tr>
<tr><td>O</td><td>19A</td><td>4!c</td><td>Amount</td><td>(see qualifier description)</td><td>:4!c//[N]3!a15d</td><td></td></tr>
<tr><td colspan="7">-----|</td></tr>
<tr><td>O</td><td>70D</td><td>DENC</td><td>Narrative</td><td>Denomination Choice</td><td>:4!c//6*35x</td><td></td></tr>
<tr><td colspan="7">-----></td></tr>
<tr><td>O</td><td>13B</td><td>CERT</td><td>Number Identification</td><td>Certificate Number</td><td>:4!c/[8c]/30x</td><td></td></tr>
<tr><td colspan="7">-----|</td></tr>
<tr><td>O</td><td>95a</td><td>ACOW</td><td>Party</td><td>Account Owner</td><td>P or R</td><td></td></tr>
<tr><td colspan="7">-----></td></tr>
<tr><td>M</td><td>97a</td><td>4!c</td><td>Account</td><td>(see qualifier description)</td><td>A or B</td><td></td></tr>
<tr><td colspan="7">-----|</td></tr>
<tr><td>O</td><td>94a</td><td>SAFE</td><td>Place</td><td>Place of Safekeeping</td><td>B, C, or F</td><td></td></tr>
<tr><td colspan="7">----->Optional Repetitive Subsequence C1 Quantity Breakdown</td></tr>
<tr><td>M</td><td>16R</td><td></td><td></td><td>Start of Block</td><td>BREAK</td><td></td></tr>
<tr><td>O</td><td>13a</td><td>LOTS</td><td>Number Identification</td><td>Lot Number</td><td>A or B</td><td></td></tr>
<tr><td>O</td><td>36B</td><td>LOTS</td><td>Quantity of Financial Instrument</td><td>Quantity of Financial Instrument In The Lot</td><td>:4!c//4!c/15d</td><td></td></tr>
<tr><td>O</td><td>98a</td><td>LOTS</td><td>Date/Time</td><td>Lot Date/Time</td><td>A, C, or E</td><td></td></tr>
<tr><td>O</td><td>90a</td><td>LOTS</td><td>Price</td><td>Book/Lot Price</td><td>A or B</td><td></td></tr>
</table>

M/O	Tag	Qualifier	Generic Field Name	Detailed Field Name	Content Options	Comments
O	22F	PRIC	Indicator	Type of Price Indicator	:4!c/[8c]/4!c	
M	16S			End of Block	BREAK	
-----| End of Subsequence C1 Quantity Breakdown						
M	16S			End of Block	FIAC	
-----| End of Sequence C Financial Instrument/Account						
Optional Sequence D Two Leg Transaction Details						
M	16R			Start of Block	REPO	This Sequence is required for Repurchase and Reverse repurchase agreements, this is the start of the second leg sequence.
----->						
O	98a	4!c	Date/Time	(see qualifier description)	A, B, or C	TERM – Closing Date/Time, or maturity of the agreement RERA - Rate Change Date/Time, required for re-rates.
-----|						
----->						
O	22F	4!c	Indicator	(see qualifier description)	:4!c/[8c]/4!c	RERT - Rate Type MICO - Method of Interest Computation Indicator REVA - Revaluation Indicator LEGA - Legal Framework Indicator
-----|						
----->						
O	20C	4!c	Reference	(see qualifier description)	:4!c//16x	REPO – Transaction Reference SECO - Second Leg Reference
-----|						
----->						
O	92a	4!c	Rate	(see qualifier description)	A, C, or F	PRIC - Pricing Rate REPO – Repurchase Rate RSPR – Spread Rate SHAI – Securities Haircut SLMG – Stock Loan Margin VASU – Variable Rate support
-----|						
----->						
O	99B	4!c	Number Count	(see qualifier description)	:4!c//3!n	CADE – Transaction Call Delay TOCO - Total Number of Collateral Instructions
-----|						
----->						

M/O	Tag	Qualifier	Generic Field Name	Detailed Field Name	Content Options	Comments
O	19A	4!c	Amount	(see qualifier description)	:4!c//[N]3!a15d	ACRU – Accrued Interest Amount DEAL – Deal Amount FORF – Forfeit Amount REPP – Premium Amount TAPC – Termination Amount per Piece of Collateral TRTE - Termination Transaction Amount
-----|						
O	70C	SECO	Narrative	Second Leg Narrative	:4!c//4*35x	SECO – Second Leg Narrative
M	16S			End of Block	REPO	
End of Sequence D Two Leg Transaction Details						
Mandatory Sequence E Settlement Details						
M	16R			Start of Block	SETDET	
----->						
M	22F	4!c	Indicator	(see qualifier description)	:4!c/[8c]/4	
-----|						
-----> **Mandatory Repetitive Subsequence E1 Settlement Parties**						
M	16R			Start of Block	SETPRTY	
----->						
M	95a	4!c	Party	(see qualifier description)	C, P, Q, R, or S	
-----|						
O	97a	SAFE	Account	Safekeeping Account	A or B	
O	98a	PROC	Date/Time	Processing Date/Time	A or C	
O	20C	PROC	Reference	Processing Reference	:4!c//16x	
----->						
O	70a	4!c	Narrative	(see qualifier description)	C, D, or E	
-----|						
M	16S			End of Block	SETPRTY	
-----| **End of Subsequence E1 Settlement Parties**						
-----> **Optional Repetitive Subsequence E2 Cash Parties**						
M	16R			Start of Block	CSHPRTY	
----->						
M	95a	4!c	Party	(see qualifier description)	P, Q, R, or S	
-----|						
----->						
O	97A	4!c	Account	(see qualifier description)	:4!c//35x	

-----|						
O	20C	PROC	Reference	Processing Reference	:4!c//16x	
----->						
O	70a	4!c	Narrative	(see qualifier description)	C, D, or E	
-----|						
M	16S			End of Block	CSHPRTY	
-----| **End of Subsequence E2 Cash Parties**						
-----> **Optional Repetitive Subsequence E3 Amount**						
M	16R			Start of Block	AMT	
----->						
O	17B	4!c	Flag	(see qualifier description)	:4!c//1!a	
-----|						
----->						
M	19A	4!c	Amount	(see qualifier description)	:4!c//[N]3!a15d	
-----|						
O	98a	VALU	Date/Time	Value Date/Time	A or C	
O	92B	EXCH	Rate	Exchange Rate	:4!c//3!a/3!a/15d	
M	16S			End of Block	AMT	
-----| **End of Subsequence E3 Amount**						
M	16S			End of Block	SETDET	
End of Sequence E Settlement Details						
-----> **Optional Repetitive Sequence F Other Parties**						
M	16R			Start of Block	OTHRPRTY	
----->						
M	95a	4!c	Party	(see qualifier description)	C, P, Q, R, or S	
-----|						
----->						
O	97A	4!c	Account	(see qualifier description)	:4!c//35x	
-----|						
----->						
O	70a	4!c	Narrative	(see qualifier description)	C, D, or E	
-----|						
O	20C	PROC	Reference	Processing Reference	:4!c//16x	
M	16S			End of Block	OTHRPRTY	
-----| **End of Sequence F Other Parties**						

M = Mandatory, O = Optional

4 Sample Message Format

This section of the document provides a variety of samples of Repurchase Agreements and Reverse Repurchase Agreements using the ISO15022 standard.

4.1 Fixed rate and term repurchase agreement and cancellation

MT543
:16R:GENL
:20C::SEME//REPOFIX123
:23G:NEWM
:16S:GENL
:16R:TRADDET
:98A::TRAD//20080305
:98A::SETT//20080308
:90B::DEAL//PRCT/USD97,9
:35B:ISIN US0123456789
:16R:FIA
:12A::CLAS/ISIT/RP
:16S:FIA
:16S:TRADDET
:16R:FIAC
:36B::SETT//FAMT/4650000,
:97A::SAFE//111111111
:16S:FIAC
:16R:REPO
:98A::TERM//20080315
:22F::RERT//FIXE
:22F::MICO//A002
:22F::REVA//REVY
:20C::REPO//REPOREF1
:92A::REPO//4,33
:99B::TOCO//001
:19A::ACRU//USD2737,73
:19A::TRTE//USD4555087,73
:70C::SECO
:16S:REPO
:16R:SETDET
:22F::SETR//REPU
:16R:SETPRTY
:95R::BUYR/DTCYID/4444
:16S:SETPRTY
:16R:SETPRTY
:95R::REAG/DTCYID/1111
:16S:SETPRTY
:16R:SETPRTY
:95P::PSET//DTCYUS33
:16S:SETPRTY
:16R:AMT
:19A::SETT//USD4552350,
:16S:AMT
:16S:SETDET

MT543 Cancel
:16R:GENL
:20C::SEME//REPOCANC1
:23G:CANC
:16R:LINK
:20C::PREV//REPOFIX123
:16S:LINK
:16S:GENL
:16R:TRADDET
:98A::TRAD//20080305
:98A::SETT//20080308
:90B::DEAL//PRCT/USD97,9
:35B:ISIN US0123456789
:16R:FIA
:12A::CLAS/ISIT/RP
:16S:FIA
:16S:TRADDET
:16R:FIAC
:36B::SETT//FAMT/4650000,
:97A::SAFE//111111111
:16S:FIAC
:16R:REPO
:98A::TERM//20080315
:22F::RERT//FIXE
:22F::MICO//A002
:22F::REVA//REVY
:20C::REPO//REPOREF1
:92A::REPO//4,33
:99B::TOCO//001
:19A::ACRU//USD2737,73
:19A::TRTE//USD4555087,73
:70C::SECO
:16S:REPO
:16R:SETDET
:22F::SETR//REPU
:16R:SETPRTY
:95R::BUYR/DTCYID/4444
:16S:SETPRTY
:16R:SETPRTY
:95R::REAG/DTCYID/1111
:16S:SETPRTY
:16R:SETPRTY
:95P::PSET//DTCYUS33
:16S:SETPRTY
:16R:AMT
:19A::SETT//USD4552350,

:16S:AMT
:16S:SETDET

4.2 Fixed rate and term reverse repurchase agreement and cancellation

MT541
:16R:GENL
:20C::SEME//RVPOFIX234
:23G:NEWM
:16S:GENL
:16R:TRADDET
:98A::TRAD//20080305
:98A::SETT//20080308
:90B::DEAL//PRCT/USD97,9
:35B:ISIN US0123456789
:16R:FIA
:12A::CLAS/ISIT/RVRP
:16S:FIA
:16S:TRADDET
:16R:FIAC
:36B::SETT//FAMT/4650000,
:97A::SAFE//111111111
:16S:FIAC
:16R:REPO
:98A::TERM//20080315
:22F::RERT//FIXE
:22F::MICO//A002
:22F::REVA//REVY
:20C::REPO//REPOREF2
:92A::REPO//4,33
:99B::TOCO//001
:19A::ACRU//USD2737,73
:19A::TRTE//USD4555087,73
:70C::SECO
:16S:REPO
:16R:SETDET
:22F::SETR//RVPO
:16R:SETPRTY
:95R::SELL/DTCYID/4444
:16S:SETPRTY
:16R:SETPRTY
:95R::DEAG/DTCYID/1111
:16S:SETPRTY
:16R:SETPRTY
:95P::PSET//DTCYUS33

MT541 Cancel
:16R:GENL
:20C::SEME//RVREPOCANC1
:23G:CANC
:16R:LINK
:20C::PREV//RVPOFIX234
:16S:LINK
:16S:GENL
:16R:TRADDET
:98A::TRAD//20080305
:98A::SETT//20080308
:90B::DEAL//PRCT/USD97,9
:35B:ISIN US0123456789
:16R:FIA
:12A::CLAS/ISIT/RVRP
:16S:FIA
:16S:TRADDET
:16R:FIAC
:36B::SETT//FAMT/4650000,
:97A::SAFE//111111111
:16S:FIAC
:16R:REPO
:98A::TERM//20080315
:22F::RERT//FIXE
:22F::MICO//A002
:22F::REVA//REVY
:20C::REPO//REPOREF2
:92A::REPO//4,33
:99B::TOCO//001
:19A::ACRU//USD2737,73
:19A::TRTE//USD4555087,73
:70C::SECO
:16S:REPO
:16R:SETDET
:22F::SETR//RVPO
:16R:SETPRTY
:95R::SELL/DTCYID/4444
:16S:SETPRTY
:16R:SETPRTY
:95R::DEAG/DTCYID/1111

:16S:SETPRTY	:16S:SETPRTY
:16R:AMT	:16R:SETPRTY
:19A::SETT//USD4552350,	:95P::PSET//DTCYUS33
:16S:AMT	:16S:SETPRTY
:16S:SETDET	:16R:AMT
	:19A::SETT//USD4552350,
	:16S:AMT
	:16S:SETDET

4.3 Fixed rate and open term repurchase agreement and cancel to add maturity date

MT543	MT543 Cancel	MT543
:16R:GENL	:16R:GENL	:16R:GENL
:20C::SEME//REPOFIXOPEN1	:20C::SEME//REPOCANC2	:20C::SEME//REPOFIXMAT1
:23G:NEWM	:23G:CANC	:23G:NEWM
:16S:GENL	:16R:LINK	:16S:GENL
:16R:TRADDET	:20C::PREV//REPOFIXOPEN1	:16R:TRADDET
:98A::TRAD//20080305	:16S:LINK	:98A::TRAD//20080305
:98A::SETT//20080308	:16S:GENL	:98A::SETT//20080308
:90B::DEAL//PRCT/USD97,9	:16R:TRADDET	:90B::DEAL//PRCT/USD97,9
:35B:ISIN US0123456789	:98A::TRAD//20080305	:35B:ISIN US0123456789
:16R:FIA	:98A::SETT//20080308	:16R:FIA
:12A::CLAS/ISIT/RP	:90B::DEAL//PRCT/USD97,9	:12A::CLAS/ISIT/RP
:16S:FIA	:35B:ISIN US0123456789	:16S:FIA
:16S:TRADDET	:16R:FIA	:16S:TRADDET
:16R:FIAC	:12A::CLAS/ISIT/RP	:16R:FIAC
:36B::SETT//FAMT/4650000,	:16S:FIA	:36B::SETT//FAMT/4650000,
:97A::SAFE//111111111	:16S:TRADDET	:97A::SAFE//111111111
:16S:FIAC	:16R:FIAC	:16S:FIAC
:16R:REPO	:36B::SETT//FAMT/4650000,	:16R:REPO
:98B::TERM//OPEN	:97A::SAFE//111111111	:98A::TERM//20080315
:22F::RERT//FIXE	:16S:FIAC	:22F::RERT//FIXE
:22F::MICO//A002	:16R:REPO	:22F::MICO//A002
:22F::REVA//REVY	:98B::TERM//OPEN	:22F::REVA//REVY
:20C::REPO//REPOREF3	:22F::RERT//FIXE	:20C::REPO//REPOREF3
:92A::REPO//4,33	:22F::MICO//A002	:92A::REPO//4,33
:99B::TOCO//001	:22F::REVA//REVY	:99B::TOCO//001
:19A::ACRU//USD2737,73	:20C::REPO//REPOREF3	:19A::ACRU//USD2737,73
:19A::TRTE//USD4555087,73	:92A::REPO//4,33	:19A::TRTE//USD4555087,73
:70C::SECO	:99B::TOCO//001	:70C::SECO
:16S:REPO	:19A::ACRU//USD2737,73	:16S:REPO
:16R:SETDET	:19A::TRTE//USD4555087,73	:16R:SETDET
:22F::SETR//REPU	:70C::SECO	:22F::SETR//REPU
:16R:SETPRTY	:16S:REPO	:22F::REPT//CALL
:95R::BUYR/DTCYID/4444	:16R:SETDET	:16R:SETPRTY
:16S:SETPRTY	:22F::SETR//REPU	:95R::BUYR/DTCYID/4444
:16R:SETPRTY	:22F::REPT//CALL	:16S:SETPRTY
:95R::REAG/DTCYID/1111	:16R:SETPRTY	:16R:SETPRTY

:16S:SETPRTY	:95R::BUYR/DTCYID/4444	:95R::REAG/DTCYID/1111
:16R:SETPRTY	:16S:SETPRTY	:16S:SETPRTY
:95P::PSET//DTCYUS33	:16R:SETPRTY	:16R:SETPRTY
:16S:SETPRTY	:95R::REAG/DTCYID/1111	:95P::PSET//DTCYUS33
:16R:AMT	:16S:SETPRTY	:16S:SETPRTY
:19A::SETT//USD4552350,	:16R:SETPRTY	:16R:AMT
:16S:AMT	:95P::PSET//DTCYUS33	:19A::SETT//USD4552350,
:16S:SETDET	:16S:SETPRTY	:16S:AMT
	:16R:AMT	:16S:SETDET
	:19A::SETT//USD4552350,	
	:16S:AMT	
	:16S:SETDET	

4.4 Fixed rate and open term reverse repurchase agreement and cancel to add maturity date

MT541	MT541 Cancel	MT541
:16R:GENL	:16R:GENL	:16R:GENL
:20C::SEME//RVREPOFIXOPEN1	:20C::SEME//RVREPOCANC2	:20C::SEME//RVREPOFIXOPEN2
:23G:NEWM	:23G:CANC	:23G:NEWM
:16S:GENL	:16R:LINK	:16S:GENL
:16R:TRADDET	:20C::PREV//RVREPOFIXOPEN1	:16R:TRADDET
:98A::TRAD//20080305	:16S:LINK	:98A::TRAD//20080305
:98A::SETT//20080308	:16S:GENL	:98A::SETT//20080308
:90B::DEAL//PRCT/USD97,9	:16R:TRADDET	:90B::DEAL//PRCT/USD97,9
:35B:ISIN US0123456789	:98A::TRAD//20080305	:35B:ISIN US0123456789
:16R:FIA	:98A::SETT//20080308	:16R:FIA
:12A::CLAS/ISIT/RVRP	:90B::DEAL//PRCT/USD97,9	:12A::CLAS/ISIT/RVRP
:16S:FIA	:35B:ISIN US0123456789	:16S:FIA
:16S:TRADDET	:16R:FIA	:16S:TRADDET
:16R:FIAC	:12A::CLAS/ISIT/RVRP	:16R:FIAC
:36B::SETT//FAMT/4650000,	:16S:FIA	:36B::SETT//FAMT/4650000,
:97A::SAFE//111111111	:16S:TRADDET	:97A::SAFE//111111111
:16S:FIAC	:16R:FIAC	:16S:FIAC
:16R:REPO	:36B::SETT//FAMT/4650000,	:16R:REPO
:98B::TERM//OPEN	:97A::SAFE//111111111	:98A::TERM//20080315
:22F::RERT//FIXE	:16S:FIAC	:22F::RERT//FIXE
:22F::MICO//A002	:16R:REPO	:22F::MICO//A002
:22F::REVA//REVY	:98B::TERM//OPEN	:22F::REVA//REVY
:20C::REPO//REPOREF4	:22F::RERT//FIXE	:20C::REPO//REPOREF4
:92A::REPO//4,33	:22F::MICO//A002	:92A::REPO//4,33
:99B::TOCO//001	:22F::REVA//REVY	:99B::TOCO//001
:19A::ACRU//USD2737,73	:20C::REPO//REPOREF4	:19A::ACRU//USD2737,73
:19A::TRTE//USD4555087,73	:92A::REPO//4,33	:19A::TRTE//USD4555087,73
:70C::SECO	:99B::TOCO//001	:70C::SECO
:16S:REPO	:19A::ACRU//USD2737,73	:16S:REPO
:16R:SETDET	:19A::TRTE//USD4555087,73	:16R:SETDET
:22F::SETR//RVPO	:70C::SECO	:22F::SETR//RVPO
:16R:SETPRTY	:16S:REPO	:22F::REPT//CALL

:95R::SELL/DTCYID/4444	:16R:SETDET	:16R:SETPRTY
:16S:SETPRTY	:22F::SETR//RVPO	:95R::SELL/DTCYID/4444
:16R:SETPRTY	:22F::REPT//CALL	:16S:SETPRTY
:95R::DEAG/DTCYID/1111	:16R:SETPRTY	:16R:SETPRTY
:16S:SETPRTY	:95R::SELL/DTCYID/4444	:95R::DEAG/DTCYID/1111
:16R:SETPRTY	:16S:SETPRTY	:16S:SETPRTY
:95P::PSET//DTCYUS33	:16R:SETPRTY	:16R:SETPRTY
:16S:SETPRTY	:95R::DEAG/DTCYID/1111	:95P::PSET//DTCYUS33
:16R:AMT	:16S:SETPRTY	:16S:SETPRTY
:19A::SETT//USD4552350,	:16R:SETPRTY	:16R:AMT
:16S:AMT	:95P::PSET//DTCYUS33	:19A::SETT//USD4552350,
:16S:SETDET	:16S:SETPRTY	:16S:AMT
	:16R:AMT	:16S:SETDET
	:19A::SETT//USD4552350,	
	:16S:AMT	
	:16S:SETDET	

4.5 Variable rate and open term repurchase agreement and cancel to add maturity date

MT543	MT543 Cancel	MT543
:16R:GENL	:16R:GENL	:16R:GENL
:20C::SEME//REPOVAROPEN1	:20C::SEME//REPOCANC3	:20C::SEME//REPOVARMAT2
:23G:NEWM	:23G:CANC	:23G:NEWM
:16S:GENL	:16R:LINK	:16S:GENL
:16R:TRADDET	:20C::PREV//REPOVAROPEN1	:16R:TRADDET
:98A::TRAD//20080305	:16S:LINK	:98A::TRAD//20080305
:98A::SETT//20080308	:16S:GENL	:98A::SETT//20080308
:90B::DEAL//PRCT/USD97,9	:16R:TRADDET	:90B::DEAL//PRCT/USD97,9
:35B:ISIN US0123456789	:98A::TRAD//20080305	:35B:ISIN US0123456789
:16R:FIA	:98A::SETT//20080308	:16R:FIA
:12A::CLAS/ISIT/RP	:90B::DEAL//PRCT/USD97,9	:12A::CLAS/ISIT/RP
:16S:FIA	:35B:ISIN US0123456789	:16S:FIA
:16S:TRADDET	:16R:FIA	:16S:TRADDET
:16R:FIAC	:12A::CLAS/ISIT/RP	:16R:FIAC
:36B::SETT//FAMT/4650000,	:16S:FIA	:36B::SETT//FAMT/4650000,
:97A::SAFE//111111111	:16S:TRADDET	:97A::SAFE//111111111
:16S:FIAC	:16R:FIAC	:16S:FIAC
:16R:REPO	:36B::SETT//FAMT/4650000,	:16R:REPO
:98B::TERM//OPEN	:97A::SAFE//111111111	:98A::TERM//20080315
:22F::RERT//VARI	:16S:FIAC	:22F::RERT//VARI
:22F::MICO//A002	:16R:REPO	:22F::MICO//A002
:22F::REVA//REVY	:98B::TERM//OPEN	:22F::REVA//REVY
:20C::REPO//REPOREF5	:22F::RERT//VARI	:20C::REPO//REPOREF5
:92A::REPO//4,33	:22F::MICO//A002	:92A::REPO//4,33
:99B::TOCO//001	:22F::REVA//REVY	:99B::TOCO//001
:19A::ACRU//USD2737,73	:20C::REPO//REPOREF5	:19A::ACRU//USD2737,73
:19A::TRTE//USD4555087,73	:92A::REPO//4,33	:19A::TRTE//USD4555087,73
:70C::SECO	:99B::TOCO//001	:70C::SECO
:16S:REPO	:19A::ACRU//USD2737,73	:16S:REPO
:16R:SETDET	:19A::TRTE//USD4555087,73	:16R:SETDET
:22F::SETR//REPU	:70C::SECO	:22F::SETR//REPU

:16R:SETPRTY	:16S:REPO	:22F::REPT//CALL
:95R::BUYR/DTCYID/4444	:16R:SETDET	:16R:SETPRTY
:16S:SETPRTY	:22F::SETR//REPU	:95R::BUYR/DTCYID/4444
:16R:SETPRTY	:22F::REPT//CALL	:16S:SETPRTY
:95R::REAG/DTCYID/1111	:16R:SETPRTY	:16R:SETPRTY
:16S:SETPRTY	:95R::BUYR/DTCYID/4444	:95R::REAG/DTCYID/1111
:16R:SETPRTY	:16S:SETPRTY	:16S:SETPRTY
:95P::PSET//DTCYUS33	:16R:SETPRTY	:16R:SETPRTY
:16S:SETPRTY	:95R::REAG/DTCYID/1111	:95P::PSET//DTCYUS33
:16R:AMT	:16S:SETPRTY	:16S:SETPRTY
:19A::SETT//USD4552350,	:16R:SETPRTY	:16R:AMT
:16S:AMT	:95P::PSET//DTCYUS33	:19A::SETT//USD4552350,
:16S:SETDET	:16S:SETPRTY	:16S:AMT
	:16R:AMT	:16S:SETDET
	:19A::SETT//USD4552350,	
	:16S:AMT	
	:16S:SETDET	

4.6 Variable rate and open term reverse repurchase agreement and cancel to add maturity date

MT541	MT541 Cancel	MT541
:16R:GENL	:16R:GENL	:16R:GENL
:20C::SEME//RVREPOVAROPEN1	:20C::SEME//RVREPOCANC3	:20C::SEME//RVREPOVARMAT2
:23G:NEWM	:23G:CANC	:23G:NEWM
:16S:GENL	:16R:LINK	:16S:GENL
:16R:TRADDET	:20C::PREV//RVREPOVAROPEN1	:16R:TRADDET
:98A::TRAD//20080305	:16S:LINK	:98A::TRAD//20080305
:98A::SETT//20080308	:16S:GENL	:98A::SETT//20080308
:90B::DEAL//PRCT/USD97,9	:16R:TRADDET	:90B::DEAL//PRCT/USD97,9
:35B:ISIN US0123456789	:98A::TRAD//20080305	:35B:ISIN US0123456789
:16R:FIA	:98A::SETT//20080308	:16R:FIA
:12A::CLAS/ISIT/RVRP	:90B::DEAL//PRCT/USD97,9	:12A::CLAS/ISIT/RVRP
:16S:FIA	:35B:ISIN US0123456789	:16S:FIA
:16S:TRADDET	:16R:FIA	:16S:TRADDET
:16R:FIAC	:12A::CLAS/ISIT/RVRP	:16R:FIAC
:36B::SETT//FAMT/4650000,	:16S:FIA	:36B::SETT//FAMT/4650000,
:97A::SAFE//111111111	:16S:TRADDET	:97A::SAFE//111111111
:16S:FIAC	:16R:FIAC	:16S:FIAC
:16R:REPO	:36B::SETT//FAMT/4650000,	:16R:REPO
:98B::TERM//OPEN	:97A::SAFE//111111111	:98A::TERM//20080315
:22F::RERT//VARI	:16S:FIAC	:22F::RERT//VARI
:22F::MICO//A002	:16R:REPO	:22F::MICO//A002
:22F::REVA//REVY	:98B::TERM//OPEN	:22F::REVA//REVY
:20C::REPO//REPOREF6	:22F::RERT//VARI	:20C::REPO//REPOREF6
:92A::REPO//4,33	:22F::MICO//A002	:92A::REPO//4,33
:99B::TOCO//001	:22F::REVA//REVY	:99B::TOCO//001
:19A::ACRU//USD2737,73	:20C::REPO//REPOREF6	:19A::ACRU//USD2737,73
:19A::TRTE//USD4555087,73	:92A::REPO//4,33	:19A::TRTE//USD4555087,73
:70C::SECO	:99B::TOCO//001	:70C::SECO
:16S:REPO	:19A::ACRU//USD2737,73	:16S:REPO

:16R:SETDET	:19A::TRTE//USD4555087,73	:16R:SETDET
:22F::SETR//RVPO	:70C::SECO	:22F::SETR//RVPO
:16R:SETPRTY	:16S:REPO	:22F::REPT//CALL
:95R::SELL/DTCYID/4444	:16R:SETDET	:16R:SETPRTY
:16S:SETPRTY	:22F::SETR//RVPO	:95R::SELL/DTCYID/4444
:16R:SETPRTY	:22F::REPT//CALL	:16S:SETPRTY
:95R::DEAG/DTCYID/1111	:16R:SETPRTY	:16R:SETPRTY
:16S:SETPRTY	:95R::SELL/DTCYID/4444	:95R::DEAG/DTCYID/1111
:16R:SETPRTY	:16S:SETPRTY	:16S:SETPRTY
:95P::PSET//DTCYUS33	:16R:SETPRTY	:16R:SETPRTY
:16S:SETPRTY	:95R::DEAG/DTCYID/1111	:95P::PSET//DTCYUS33
:16R:AMT	:16S:SETPRTY	:16S:SETPRTY
:19A::SETT//USD4552350,	:16R:SETPRTY	:16R:AMT
:16S:AMT	:95P::PSET//DTCYUS33	:19A::SETT//USD4552350,
:16S:SETDET	:16S:SETPRTY	:16S:AMT
	:16R:AMT	:16S:SETDET
	:19A::SETT//USD4552350,	
	:16S:AMT	
	:16S:SETDET	

4.7 Variable rate and open term repurchase agreement and cancel for Re-Rate

MT543	MT543 Cancel	MT543
:16R:GENL	:16R:GENL	:16R:GENL
:20C::SEME//REPOVAROPEN2	:20C::SEME//REPOCANC4	:20C::SEME//REPORERATE1
:23G:NEWM	:23G:CANC	:23G:NEWM
:16S:GENL	:16R:LINK	:16S:GENL
:16R:TRADDET	:20C::PREV//REPOVAROPEN2	:16R:TRADDET
:98A::TRAD//20080305	:16S:LINK	:98A::TRAD//20080305
:98A::SETT//20080308	:16S:GENL	:98A::SETT//20080308
:90B::DEAL//PRCT/USD97,9	:16R:TRADDET	:90B::DEAL//PRCT/USD97,9
:35B:ISIN US0123456789	:98A::TRAD//20080305	:35B:ISIN US0123456789
:16R:FIA	:98A::SETT//20080308	:16R:FIA
:12A::CLAS/ISIT/RP	:90B::DEAL//PRCT/USD97,9	:12A::CLAS/ISIT/RP
:16S:FIA	:35B:ISIN US0123456789	:16S:FIA
:16S:TRADDET	:16R:FIA	:16S:TRADDET
:16R:FIAC	:12A::CLAS/ISIT/RP	:16R:FIAC
:36B::SETT//FAMT/4650000,	:16S:FIA	:36B::SETT//FAMT/4650000,
:97A::SAFE//111111111	:16S:TRADDET	:97A::SAFE//111111111
:16S:FIAC	:16R:FIAC	:16S:FIAC
:16R:REPO	:36B::SETT//FAMT/4650000,	:16R:REPO
:98B::TERM//OPEN	:97A::SAFE//111111111	:98B::TERM//OPEN
:22F::RERT//VARI	:16S:FIAC	:98A::RERA//20080315
:22F::MICO//A002	:16R:REPO	:22F::RERT//VARI
:22F::REVA//REVY	:98B::TERM//OPEN	:22F::MICO//A002
:20C::REPO//REPOREF7	:22F::RERT//VARI	:22F::REVA//REVY
:92A::REPO//4,33	:22F::MICO//A002	:20C::REPO//REPOREF7
:99B::TOCO//001	:22F::REVA//REVY	:92A::REPO//4,4
:19A::ACRU//USD2737,73	:20C::REPO//REPOREF7	:99B::TOCO//001
:19A::TRTE//USD4555087,73	:92A::REPO//4,33	:19A::ACRU//USD2737,73
:70C::SECO	:99B::TOCO//001	:19A::TRTE//USD4555087,73
:16S:REPO	:19A::ACRU//USD2737,73	:70C::SECO

:16R:SETDET	:19A::TRTE//USD4555087,73	:16S:REPO
:22F::SETR//REPU	:70C::SECO	:16R:SETDET
:16R:SETPRTY	:16S:REPO	:22F::SETR//REPU
:95R::BUYR/DTCYID/4444	:16R:SETDET	:22F::REPT//RATE
:16S:SETPRTY	:22F::SETR//REPU	:16R:SETPRTY
:16R:SETPRTY	:22F::REPT//RATE	:95R::BUYR/DTCYID/4444
:95R::REAG/DTCYID/1111	:16R:SETPRTY	:16S:SETPRTY
:16S:SETPRTY	:95R::BUYR/DTCYID/4444	:16R:SETPRTY
:16R:SETPRTY	:16S:SETPRTY	:95R::REAG/DTCYID/1111
:95P::PSET//DTCYUS33	:16R:SETPRTY	:16S:SETPRTY
:16S:SETPRTY	:95R::REAG/DTCYID/1111	:16R:SETPRTY
:16R:AMT	:16S:SETPRTY	:95P::PSET//DTCYUS33
:19A::SETT//USD4552350,	:16R:SETPRTY	:16S:SETPRTY
:16S:AMT	:95P::PSET//DTCYUS33	:16R:AMT
:16S:SETDET	:16S:SETPRTY	:19A::SETT//USD4552350,
	:16R:AMT	:16S:AMT
	:19A::SETT//USD4552350,	:16S:SETDET
	:16S:AMT	
	:16S:SETDET	

4.8 Variable rate and open term reverse repurchase agreement and cancel for Re-Rate

MT541	MT541 Cancel	MT541
:16R:GENL	:16R:GENL	:16R:GENL
:20C::SEME//RVREPOVAROPEN2	:20C::SEME//RVREPOCANC4	:20C::SEME//RVREPORERATE1
:23G:NEWM	:23G:CANC	:23G:NEWM
:16S:GENL	:16R:LINK	:16S:GENL
:16R:TRADDET	:20C::PREV//RVREPOVAROPEN2	:16R:TRADDET
:98A::TRAD//20080305	:16S:LINK	:98A::TRAD//20080305
:98A::SETT//20080308	:16S:GENL	:98A::SETT//20080308
:90B::DEAL//PRCT/USD97,9	:16R:TRADDET	:90B::DEAL//PRCT/USD97,9
:35B:ISIN US0123456789	:98A::TRAD//20080305	:35B:ISIN US0123456789
:16R:FIA	:98A::SETT//20080308	:16R:FIA
:12A::CLAS/ISIT/RVRP	:90B::DEAL//PRCT/USD97,9	:12A::CLAS/ISIT/RVRP
:16S:FIA	:35B:ISIN US0123456789	:16S:FIA
:16S:TRADDET	:16R:FIA	:16S:TRADDET
:16R:FIAC	:12A::CLAS/ISIT/RVRP	:16R:FIAC
:36B::SETT//FAMT/4650000,	:16S:FIA	:36B::SETT//FAMT/4650000,
:97A::SAFE//111111111	:16S:TRADDET	:97A::SAFE//111111111
:16S:FIAC	:16R:FIAC	:16S:FIAC
:16R:REPO	:36B::SETT//FAMT/4650000,	:16R:REPO
:98B::TERM//OPEN	:97A::SAFE//111111111	:98B::TERM//OPEN
:22F::RERT//VARI	:16S:FIAC	:98A::RERA//20080315
:22F::MICO//A002	:16R:REPO	:22F::RERT//VARI
:22F::REVA//REVY	:98B::TERM//OPEN	:22F::MICO//A002
:20C::REPO//REPOREF8	:22F::RERT//VARI	:22F::REVA//REVY
:92A::REPO//4,33	:22F::MICO//A002	:20C::REPO//REPOREF8
:99B::TOCO//001	:22F::REVA//REVY	:92A::REPO//4,4
:19A::ACRU//USD2737,73	:20C::REPO//REPOREF8	:99B::TOCO//001
:19A::TRTE//USD4555087,73	:92A::REPO//4,33	:19A::ACRU//USD2737,73

:70C::SECO	:99B::TOCO//001	:19A::TRTE//USD4555087,73
:16S:REPO	:19A::ACRU//USD2737,73	:70C::SECO
:16R:SETDET	:19A::TRTE//USD4555087,73	:16S:REPO
:22F::SETR//RVPO	:70C::SECO	:16R:SETDET
:16R:SETPRTY	:16S:REPO	:22F::SETR//RVPO
:95R::SELL/DTCYID/4444	:16R:SETDET	:22F::REPT//RATE
:16S:SETPRTY	:22F::SETR//RVPO	:16R:SETPRTY
:16R:SETPRTY	:22F::REPT//RATE	:95R::SELL/DTCYID/4444
:95R::DEAG/DTCYID/1111	:16R:SETPRTY	:16S:SETPRTY
:16S:SETPRTY	:95R::SELL/DTCYID/4444	:16R:SETPRTY
:16R:SETPRTY	:16S:SETPRTY	:95R::DEAG/DTCYID/1111
:95P::PSET//DTCYUS33	:16R:SETPRTY	:16S:SETPRTY
:16S:SETPRTY	:95R::DEAG/DTCYID/1111	:16R:SETPRTY
:16R:AMT	:16S:SETPRTY	:95P::PSET//DTCYUS33
:19A::SETT//USD4552350,	:16R:SETPRTY	:16S:SETPRTY
:16S:AMT	:95P::PSET//DTCYUS33	:16R:AMT
:16S:SETDET	:16S:SETPRTY	:19A::SETT//USD4552350,
	:16R:AMT	:16S:AMT
	:19A::SETT//USD4552350,	:16S:SETDET
	:16S:AMT	
	:16S:SETDET	

4.9 Repurchase agreement with multiple pieces of collateral

MT543	MT543	MT543
:16R:GENL	:16R:GENL	:16R:GENL
:20C::SEME//REPOMULTCOL1	:20C::SEME//REPOMULTCOL2	:20C::SEME//REPOMULTCOL3
:23G:NEWM	:23G:NEWM	:23G:NEWM
:99B::SETT//001	:99B::SETT//002	:99B::SETT//003
:16S:GENL	:16S:GENL	:16S:GENL
:16R:TRADDET	:16R:TRADDET	:16R:TRADDET
:98A::TRAD//20080305	:98A::TRAD//20080305	:98A::TRAD//20080305
:98A::SETT//20080308	:98A::SETT//20080308	:98A::SETT//20080308
:90B::DEAL//PRCT/USD97,9	:90B::DEAL//PRCT/USD97,9	:90B::DEAL//PRCT/USD97,9
:35B:ISIN US0123456789	:35B:ISIN US9876543210	:35B:ISIN US1111111111
:16R:FIA	:16R:FIA	:16R:FIA
:12A::CLAS/ISIT/RP	:12A::CLAS/ISIT/RP	:12A::CLAS/ISIT/RP
:16S:FIA	:16S:FIA	:16S:FIA
:16S:TRADDET	:16S:TRADDET	:16S:TRADDET
:16R:FIAC	:16R:FIAC	:16R:FIAC
:36B::SETT//FAMT/4650000,	:36B::SETT//FAMT/4650000,	:36B::SETT//FAMT/4650000,
:97A::SAFE//111111111	:97A::SAFE//111111111	:97A::SAFE//111111111
:16S:FIAC	:16S:FIAC	:16S:FIAC
:16R:REPO	:16R:REPO	:16R:REPO
:98A::TERM//20080315	:98A::TERM//20080315	:98A::TERM//20080315
:22F::RERT//FIXE	:22F::RERT//FIXE	:22F::RERT//FIXE
:22F::MICO//A002	:22F::MICO//A002	:22F::MICO//A002
:22F::REVA//REVY	:22F::REVA//REVY	:22F::REVA//REVY
:20C::REPO//REPOREF9	:20C::REPO//REPOREF9	:20C::REPO//REPOREF9
:92A::REPO//4,33	:92A::REPO//4,33	:92A::REPO//4,33

:99B::TOCO//003	:99B::TOCO//003	:99B::TOCO//003
:19A::ACRU//USD2737,73	:19A::ACRU//USD2737,73	:19A::ACRU//USD2737,73
:19A::TRTE//USD4555087,73	:19A::TRTE//USD4555087,73	:19A::TRTE//USD4555087,73
:70C::SECO	:70C::SECO	:70C::SECO
:16S:REPO	:16S:REPO	:16S:REPO
:16R:SETDET	:16R:SETDET	:16R:SETDET
:22F::SETR//REPU	:22F::SETR//REPU	:22F::SETR//REPU
:16R:SETPRTY	:16R:SETPRTY	:16R:SETPRTY
:95R::BUYR/DTCYID/4444	:95R::BUYR/DTCYID/4444	:95R::BUYR/DTCYID/4444
:16S:SETPRTY	:16S:SETPRTY	:16S:SETPRTY
:16R:SETPRTY	:16R:SETPRTY	:16R:SETPRTY
:95R::REAG/DTCYID/1111	:95R::REAG/DTCYID/1111	:95R::REAG/DTCYID/1111
:16S:SETPRTY	:16S:SETPRTY	:16S:SETPRTY
:16R:SETPRTY	:16R:SETPRTY	:16R:SETPRTY
:95P::PSET//DTCYUS33	:95P::PSET//DTCYUS33	:95P::PSET//DTCYUS33
:16S:SETPRTY	:16S:SETPRTY	:16S:SETPRTY
:16R:AMT	:16R:AMT	:16R:AMT
:19A::SETT//USD4552350,	:19A::SETT//USD4552350,	:19A::SETT//USD4552350,
:16S:AMT	:16S:AMT	:16S:AMT
:16S:SETDET	:16S:SETDET	:16S:SETDET

4.10 Reverse repurchase agreement with multiple pieces of collateral

MT541	MT541	MT541
:16R:GENL	:16R:GENL	:16R:GENL
:20C::SEME//RVREPOMULTCOL1	:20C::SEME//RVREPOMULTCOL2	:20C::SEME//RVREPOMULTCOL3
:23G:NEWM	:23G:NEWM	:23G:NEWM
:99B::SETT//001	:99B::SETT//002	:99B::SETT//003
:16S:GENL	:16S:GENL	:16S:GENL
:16R:TRADDET	:16R:TRADDET	:16R:TRADDET
:98A::TRAD//20080305	:98A::TRAD//20080305	:98A::TRAD//20080305
:98A::SETT//20080308	:98A::SETT//20080308	:98A::SETT//20080308
:90B::DEAL//PRCT/USD97,9	:90B::DEAL//PRCT/USD97,9	:90B::DEAL//PRCT/USD97,9
:35B:ISIN US0123456789	:35B:ISIN US9876543210	:35B:ISIN US11111111111
:16R:FIA	:16R:FIA	:16R:FIA
:12A::CLAS/ISIT/RVRP	:12A::CLAS/ISIT/RVRP	:12A::CLAS/ISIT/RVRP
:16S:FIA	:16S:FIA	:16S:FIA
:16S:TRADDET	:16S:TRADDET	:16S:TRADDET
:16R:FIAC	:16R:FIAC	:16R:FIAC
:36B::SETT//FAMT/4650000,	:36B::SETT//FAMT/4650000,	:36B::SETT//FAMT/4650000,
:97A::SAFE//111111111	:97A::SAFE//111111111	:97A::SAFE//111111111
:16S:FIAC	:16S:FIAC	:16S:FIAC
:16R:REPO	:16R:REPO	:16R:REPO
:98A::TERM//20080315	:98A::TERM//20080315	:98A::TERM//20080315
:22F::RERT//FIXE	:22F::RERT//FIXE	:22F::RERT//FIXE

:22F::MICO//A002	:22F::MICO//A002	:22F::MICO//A002
:22F::REVA//REVY	:22F::REVA//REVY	:22F::REVA//REVY
:20C::REPO//REPOREF10	:20C::REPO//REPOREF10	:20C::REPO//REPOREF10
:92A::REPO//4,33	:92A::REPO//4,33	:92A::REPO//4,33
:99B::TOCO//003	:99B::TOCO//003	:99B::TOCO//003
:19A::ACRU//USD2737,73	:19A::ACRU//USD2737,73	:19A::ACRU//USD2737,73
:19A::TRTE//USD4555087,73	:19A::TRTE//USD4555087,73	:19A::TRTE//USD4555087,73
:70C::SECO	:70C::SECO	:70C::SECO
:16S:REPO	:16S:REPO	:16S:REPO
:16R:SETDET	:16R:SETDET	:16R:SETDET
:22F::SETR//RVPO	:22F::SETR//RVPO	:22F::SETR//RVPO
:16R:SETPRTY	:16R:SETPRTY	:16R:SETPRTY
:95R::SELL/DTCYID/4444	:95R::SELL/DTCYID/4444	:95R::SELL/DTCYID/4444
:16S:SETPRTY	:16S:SETPRTY	:16S:SETPRTY
:16R:SETPRTY	:16R:SETPRTY	:16R:SETPRTY
:95R::DEAG/DTCYID/1111	:95R::DEAG/DTCYID/1111	:95R::DEAG/DTCYID/1111
:16S:SETPRTY	:16S:SETPRTY	:16S:SETPRTY
:16R:SETPRTY	:16R:SETPRTY	:16R:SETPRTY
:95P::PSET//DTCYUS33	:95P::PSET//DTCYUS33	:95P::PSET//DTCYUS33
:16S:SETPRTY	:16S:SETPRTY	:16S:SETPRTY
:16R:AMT	:16R:AMT	:16R:AMT
:19A::SETT//USD4552350,	:19A::SETT//USD4552350,	:19A::SETT//USD4552350,
:16S:AMT	:16S:AMT	:16S:AMT
:16S:SETDET	:16S:SETDET	:16S:SETDET

4.11 Repurchase agreement collateral substitution

MT543	MT540	MT542
:16R:GENL	:16R:GENL	:16R:GENL
:20C::SEME//REPOINIT1	:20C::SEME//REPOCOLSUB1	:20C::SEME//REPOCOLSUB2
:23G:NEWM	:23G:NEWM	:23G:NEWM
:16S:GENL	:16R:LINK	:16R:LINK
:16R:TRADDET	:20C::PREV//REPOINIT1	:20C::PREV//REPOINIT1
:98A::TRAD//20080305	:16S: LINK	:16S: LINK
:98A::SETT//20080308	:16S:GENL	:16R:LINK
:90B::DEAL//PRCT/USD97,9	:16R:TRADDET	:22F::LINK//WITH
:35B:ISIN US0123456789	:98A::TRAD//20080305	:20C::PREV//REPOCOLSUB1
:16R:FIA	:98A::SETT//20080308	:16S: LINK
:12A::CLAS/ISIT/RP	:90B::DEAL//PRCT/USD97,9	:16S:GENL
:16S:FIA	:35B:ISIN US0123456789	:16R:TRADDET
:16S:TRADDET	:16R:FIA	:98A::TRAD//20080305
:16R:FIAC	:12A::CLAS/ISIT/RP	:98A::SETT//20080308
:36B::SETT//FAMT/4650000,	:16S:FIA	:90B::DEAL//PRCT/USD97,9
:97A::SAFE//111111111	:16S:TRADDET	:35B:ISIN US9876543210
:16S:FIAC	:16R:FIAC	:16R:FIA
:16R:REPO	:36B::SETT//FAMT/4650000,	:12A::CLAS/ISIT/RP
:98A::TERM//20080315	:97A::SAFE//111111111	:16S:FIA

:22F::RERT//FIXE	:16S:FIAC	:16S:TRADDET
:22F::MICO//A002	:16R:REPO	:16R:FIAC
:22F::REVA//REVY	:98A::TERM//20080315	:36B::SETT//FAMT/4650000,
:20C::REPO//REPOREF11	:22F::RERT//FIXE	:97A::SAFE//111111111
:92A::REPO//4,33	:22F::MICO//A002	:16S:FIAC
:99B::TOCO//001	:22F::REVA//REVY	:16R:REPO
:19A::ACRU//USD2737,73	:20C::REPO//REPOREF11	:98A::TERM//20080315
:19A::TRTE//USD4555087,73	:92A::REPO//4,33	:22F::RERT//FIXE
:70C::SECO	:99B::TOCO//001	:22F::MICO//A002
:16S:REPO	:19A::ACRU//USD2737,73	:22F::REVA//REVY
:16R:SETDET	:19A::TRTE//USD4555087,73	:20C::REPO//REPOREF11
:22F::SETR//REPU	:70C::SECO	:92A::REPO//4,33
:22F::REPT//CADJ	:16S:REPO	:99B::TOCO//001
:16R:SETPRTY	:16R:SETDET	:19A::ACRU//USD2737,73
:95R::BUYR/DTCYID/4444	:22F::SETR//REPU	:19A::TRTE//USD4555087,73
:16S:SETPRTY	:22F::REPT//CADJ	:70C::SECO
:16R:SETPRTY	:16R:SETPRTY	:16S:REPO
:95R::REAG/DTCYID/1111	:95R::SELL/DTCYID/4444	:16R:SETDET
:16S:SETPRTY	:16S:SETPRTY	:22F::SETR//REPU
:16R:SETPRTY	:16R:SETPRTY	:22F::REPT//CADJ
:95P::PSET//DTCYUS33	:95R::DEAG/DTCYID/1111	:16R:SETPRTY
:16S:SETPRTY	:16S:SETPRTY	:95R::BUYR/DTCYID/4444
:16R:AMT	:16R:SETPRTY	:16S:SETPRTY
:19A::SETT//USD4552350,	:95P::PSET//DTCYUS33	:16R:SETPRTY
:16S:AMT	:16S:SETPRTY	:95R::REAG/DTCYID/1111
:16S:SETDET	:16S:SETDET	:16S:SETPRTY
		:16R:SETPRTY
		:95P::PSET//DTCYUS33
		:16S:SETPRTY
		:16S:SETDET

4.12 Reverse repurchase agreement collateral substitution

MT541	MT542	MT540
:16R:GENL	:16R:GENL	:16R:GENL
:20C::SEME//RVREPOINIT1	:20C::SEME//RVREPOCOLSUB1	:20C::SEME//RVREPOCOLSUB2
:23G:NEWM	:23G:NEWM	:23G:NEWM
:16S:GENL	:16R:LINK	:16R:LINK
:16R:TRADDET	:20C::PREV//RVREPOINIT1	:20C::PREV//RVREPOINIT1
:98A::TRAD//20080305	:16S: LINK	:16S: LINK
:98A::SETT//20080308	:16S:GENL	:16R:LINK
:90B::DEAL//PRCT/USD97,9	:16R:TRADDET	:22F::LINK//WITH
:35B:ISIN US0123456789	:98A::TRAD//20080305	:20C::PREV///RVREPOCOLSUB1
:16R:FIA	:98A::SETT//20080308	:16S: LINK
:12A::CLAS/ISIT/RVRP	:90B::DEAL//PRCT/USD97,9	:16S:GENL
:16S:FIA	:35B:ISIN US0123456789	:16R:TRADDET
:16S:TRADDET	:16R:FIA	:98A::TRAD//20080305
:16R:FIAC	:12A::CLAS/ISIT/RVRP	:98A::SETT//20080308
:36B::SETT//FAMT/4650000,	:16S:FIA	:90B::DEAL//PRCT/USD97,9

:97A::SAFE//111111111	:16S:TRADDET	:35B:ISIN US9876543210
:16S:FIAC	:16R:FIAC	:16R:FIA
:16R:REPO	:36B::SETT//FAMT/4650000,	:12A::CLAS/ISIT/RVRP
:98A::TERM//20080315	:97A::SAFE//111111111	:16S:FIA
:22F::RERT//FIXE	:16S:FIAC	:16S:TRADDET
:22F::MICO//A002	:16R:REPO	:16R:FIAC
:22F::REVA//REVY	:98A::TERM//20080315	:36B::SETT//FAMT/4650000,
:20C::REPO//REPOREF12	:22F::RERT//FIXE	:97A::SAFE//111111111
:92A::REPO//4,33	:22F::MICO//A002	:16S:FIAC
:99B::TOCO//001	:22F::REVA//REVY	:16R:REPO
:19A::ACRU//USD2737,73	:20C::REPO//REPOREF12	:98A::TERM//20080315
:19A::TRTE//USD4555087,73	:92A::REPO//4,33	:22F::RERT//FIXE
:70C::SECO	:99B::TOCO//001	:22F::MICO//A002
:16S:REPO	:19A::ACRU//USD2737,73	:22F::REVA//REVY
:16R:SETDET	:19A::TRTE//USD4555087,73	:20C::REPO//REPOREF12
:22F::SETR//RVPO	:70C::SECO	:92A::REPO//4,33
:16R:SETPRTY	:16S:REPO	:99B::TOCO//001
:95R::SELL/DTCYID/4444	:16R:SETDET	:19A::ACRU//USD2737,73
:16S:SETPRTY	:22F::SETR//RVPO	:19A::TRTE//USD4555087,73
:16R:SETPRTY	:22F::REPT//CADJ	:70C::SECO
:95R::DEAG/DTCYID/1111	:16R:SETPRTY	:16S:REPO
:16S:SETPRTY	:95R::BUYR/DTCYID/4444	:16R:SETDET
:16R:SETPRTY	:16S:SETPRTY	:22F::SETR//RVPO
:95P::PSET//DTCYUS33	:16R:SETPRTY	:22F::REPT//CADJ
:16S:SETPRTY	:95R::REAG/DTCYID/1111	:16R:SETPRTY
:16R:AMT	:16S:SETPRTY	:95R::SELL/DTCYID/4444
:19A::SETT//USD4552350,	:16R:SETPRTY	:16S:SETPRTY
:16S:AMT	:95P::PSET//DTCYUS33	:16R:SETPRTY
:16S:SETDET	:16S:SETPRTY	:95R::DEAG/DTCYID/1111
	:16S:SETDET	:16S:SETPRTY
		:16R:SETPRTY
		:95P::PSET//DTCYUS33
		:16S:SETPRTY
		:16S:SETDET