**ISO 20022**

FX Post-Trade Trade Capture

Approved by the FX SEG on 15 February 2016

**Message Definition Report** **- Part 1**

Edition February 2016

Table of contents

[1. Introduction 3](#_Toc443983144)

[1.1 Terms and definitions 3](#_Toc443983145)

[1.2 Glossary 3](#_Toc443983146)

[1.3 Document Scope and Objectives 4](#_Toc443983147)

[1.4 References 4](#_Toc443983148)

[2. Scope and Functionality 5](#_Toc443983149)

[2.1 Background 5](#_Toc443983150)

[2.2 Scope 5](#_Toc443983151)

[2.3 Groups of candidate MessageDefinitions and Functionality 5](#_Toc443983152)

[3. BusinessRoles and Participants 6](#_Toc443983153)

[4. BusinessProcess Description 7](#_Toc443983154)

[4.1 BusinessProcess Diagram 7](#_Toc443983155)

[5. Description of BusinessActivities 8](#_Toc443983156)

[5.1 BusinessProcess – Trade Capture &Validations 9](#_Toc443983157)

[6. BusinessTransactions 11](#_Toc443983158)

[6.1 Trade Capture &Validations 11](#_Toc443983159)

[6.1.1 Trade Capture Report as Notification 11](#_Toc443983160)

[6.1.2 Request Trade Capture Report 12](#_Toc443983161)

[7. Examples 13](#_Toc443983162)

[7.1 Trade Capture Report as Notification- fxtr.031.001.01/fxtr.033.001.01 13](#_Toc443983163)

[8. Revision Record 17](#_Toc443983164)

**Preliminary note:**

The Message Definition Report (MDR) is made of three parts:

* **MDR - Part 1** describes the contextual background required to understand the functionality of the proposed message set. Part 1 is produced by the submitting organisation that developed or maintained the message set in line with a MDR Part1 template provided by the ISO 20022 Registration Authority (RA) on [www.iso20022.org](http://www.iso20022.org)
* **MDR – Part 2** is the detailed description of each message definition of the message set. Part 2 is produced by the RA using the model developed by the submitting organisation.
* **MDR – Part 3** is an extract of the ISO 20022 Business Model describing the business concepts used in the message set. Part 3 is an Excel document produced by the RA.

# Introduction

## Terms and definitions

The following terms are reserved words defined in ISO 20022 – Part1. When used in this document, they will follow the UpperCamelCase notation.

|  |  |
| --- | --- |
| Term | Definition |
| BusinessRole | functional role played by a business actor in a particular BusinessProcess or BusinessTransaction |
| Participant | involvement of a BusinessRole in a BusinessTransaction |
| BusinessProcess | unrealized definition of the business activities undertaken by BusinessRoles within a BusinessArea whereby each BusinessProcess fulfils one type of business activity and whereby a BusinessProcess may include and extend other BusinessProcesses |
| BusinessTransaction | particular solution that meets the communication requirements and the interaction requirements of a particular BusinessProcess and BusinessArea |
| MessageDefinition | formal description of the structure of a MessageInstance |

## Glossary

**Terms**

|  |  |
| --- | --- |
| Business Process | Description |
| Pre-Trade | Pre-Trade covers all activity which occurs prior to a trade. Examples of pre-trade activity are indications of interest (IOI), trade advertisements, quotes and market data (in support of trade through post-trade functions, i.e. market data dissemination, instrument identifiers, descriptive data, attributes, rates, codes and contact data, etc.) |
| Trade | The trade area includes the order and execution processes, including order management, order routing and trade execution. |
| Trade Execution | The process in which a trade is executed. The trade may be a single, multi-leg, cross, basket, list, etc. |
| Post-Trade | Post-trade covers all activities after execution, up until clearing and pre-settlement begins. |
| Trade Capture & Validations | The process in which trades (block and / or allocations) are captured by a central counterparty or local from the trading system. |
| Allocation | Allocation of trades from both two and three party models. |

**Acronyms**

|  |  |
| --- | --- |
| Acronym | Definition |
| CFETS | China Foreign Exchange Trade System |
| FX | Foreign Exchange |

**Abbreviations**

|  |  |
| --- | --- |
| Abbreviation | Definition |
| Ack | Acknowledgement |

## Document Scope and Objectives

This document is the first part of the ISO 20022 Message Definition Report (MDR) that describes the *BusinessTransactions* and underlying message set. For the sake of completeness, the document may also describe BusinessActivities that are not in the scope of the project.

This document sets:

* The BusinessProcess scope (business processes addressed or impacted by the project)
* The BusinessRoles involved in these BusinessProcesses

The main objectives of this document are:

* To explain what BusinessProcesses and BusinessActivities these candidate MessageDefinitions have addressed
* To give a high level description of BusinessProcesses and the associated BusinessRoles
* To document the BusinessTransactions and their Participants (sequence diagrams)
* To list the candidate MessageDefinitions

## References

| Document | Version | Date | Author |
| --- | --- | --- | --- |
| ISO 20022 Business Justification – FX Post-Trade Trade Capture Message |  | 2014-02-18 | CFETS |
| Inter-bank Market Information Exchange Protocol | 1.0/2.0 |  | CFETS |

# Scope and Functionality

## Background

This Message Definition Report covers a set of 3 ISO 20022 MessageDefinitions developed by CFETS and approved by the Foreign Exchange Standards Evaluation Group (SEG) on 15 February 2016. These MessageDefinitions are specifically designed to support the creation of FX post-trade messages in ISO 20022.

## Scope

The message set covers parts of the FX post-trade program, namely confirm trade and confirm match.

|  |  |
| --- | --- |
| Financial Instruments | FX (Spot/ Forward/ Swap);FX Option |
| Business agreement types | Buy / sell |
| Business areas | FX Post-Trade Trade Capture  (ISO 20022 business area: Foreign Exchange Trade (fxtr)) |
| Business processes | Trade capture & validation |
| Out of Scope | Execution  Allocation |

Three messages have been designed to cover the business process described above.

* ForeignExchangeTradeCaptureReport: ForeignExchangeTradeCaptureReport message is sent from a trading system to notify a market participant that a trade has been fully or partially executed with trade details.
* ForeignExchangeTradeCaptureReport Acknowledgment: ForeignExchangeTradeCaptureReportAcknowledgment message is sent from the market participant to the trading system in response to the receipt of the ForeignExchangeTradeCaptureReport.
* ForeignExchangeTradeCaptureReportRequest: ForeignExchangeTradeCaptureReportRequest message is sent from a market participant to a trading system to request trade capture report. The message will be sent by the market participants to initiate an inquiry for the ForeignExchangeTradeCaptureReport.

## Groups of candidate MessageDefinitions and Functionality

**Note that these MessageDefinitions are to be used with the ISO 20022 Business Application Header (head.001). The schema and more information about the Business Application Header (BAH) can be found on the** [**www.iso20022.org**](http://www.iso20022.org/bah.page) **web site.**

|  |
| --- |
| **Foreign Exchange Trade Management(fxtr)** |
| Message ID |
| ForeignExchangeTradeCaptureReport - fxtr.031 |
| ForeignExchangeTradeCaptureReportRequest - fxtr.032 |
| ForeignExchangeTradeCaptureReportAcknowledgment - fxtr.033 |

# BusinessRoles and Participants

A BusinessRole represents an entity (or a class of entities) of the real world, physical or legal, a person, a group of persons, a corporation. Examples of BusinessRoles: “Financial Institution”, “ACH”, “CSD”.

A Participant is a functional role performed by a BusinessRole in a particular BusinessProcess or BusinessTransaction: for example the “user” of a system, “debtor”, “creditor”, “investor” etc.

The relationship between BusinessRoles and Participants is many-to-many. One BusinessRole (that is, a person) can be involved as different Participants at different moments in time or at the same time: "user", "debtor”, "creditor", "investor", etc. Different BusinessRoles can be involved as the same Participant.

In the context of FX post-trade trade capture, the high-level BusinessRoles and typical Participants can be represented as follows.



| **Participants and BusinessRoles definitions** | |
| --- | --- |
| **Description** | **Definition** |
| Participants | |
| Instructing Party | Party that manages the account on behalf of the account owner (that is, manages the registration and booking of entries on the account, calculates balances on the account and provides information about the account), or the party that has a contractual relationship with the owner (for example, market data provider). |
| Executing/Serving Party | Party that legally holds the account or the party in a contractual relationship with the servicer. |
| BusinessRoles | |
| FX Trading Member | Organisations that are members of a foreign exchange market. They are permitted to participate in foreign exchange trading. |
| Trading System | A system that processes foreign exchange trade activities between FX Trading Members. Trade details are agreed upon and executed within the trading system. |

|  |  |  |
| --- | --- | --- |
| **BusinessRoles/Participants Matrix Table** | | |
| Participants  BusinessRoles | Instructing Party | Executing/Serving Party |
| FX Trading Member |  | X |
| Trading System | X | X |

# BusinessProcess Description

## BusinessProcess Diagram

This section presents the business processes. Describing the business processes and their need for business information helps in the identification of the communication problems which exist among Business Actors.

The following diagram reflects the trade lifecycle from be executed to be allocated. It should be noted that the trade executed and allocated processes are outside the scope of this project but are shown to provide clarity.



<Execution process>:

* Definition: The process in which a trade is executed. The trade may be a single, multi-leg, cross, basket, list, etc. (OUT OF SCOPE)
* Trigger: FX trading member starts the execution process.
* Pre-conditions: The execution process is started.
* Post-conditions: The trade is executed.
* Role: FX trading member

<Trade Capture and Validations>:

* Definition: The process in which trade reports are captured by FX trading members from the trading system, for purposes of trade matching and confirmation.
* Trigger: The trade is executed.
* Pre-conditions: The trade is executed.
* Post-conditions: The trade is captured.
* Role: the trading system and FX trading member.

<Allocation process>:

* Definition: FX trading member allocates the block trade among different funds or clients. (OUT OF SCOPE)
* Trigger: FX trading member starts the allocation process.
* Pre-conditions: The trade is captured.
* Post-conditions: The trade is distributed to different clients.
* Role: FX trading Member.

# Description of BusinessActivities

This section presents the different *BusinessActivities* within each *BusinessProcess*. *BusinessActivities* of a process are described in swim lane diagrams and are referred in this document as activity diagrams.

The development of an activity diagram is part of the ISO 20022 modelling process and allows capturing the requirements.

The activity diagram provides a zoom-in on the *BusinessActivities* taking place during each of the *BusinessProcesses* described in Section 4. It also shows the *BusinessActivities* that are triggered when another *BusinessActivity* has a negative result.

What is the activity diagram about?

* It is a diagram representing the ‘common lifecycle’ of a *BusinessProcess*
* A start point ⚫ shows where the lifecycle of the *BusinessProcess* commences and the end points show End point where the lifecycle may possibly end
* A lozenge means that a choice between several actions can be made
* A bar means that several actions are initiated in parallel
* The flow of activities between the involved *Participants* (parties)
* *BusinessActivities* may result in different actions, that is, information is conveyed from one party to another party.

Both in-scope and out-of-scope activities are included, with a different level of details. There are no information requirements for out-of-scope activities, except that they should be clearly identified in the diagram.

Activity diagrams are always accompanied with a text describing the *BusinessActivities* and their interactions.

## BusinessProcess – Trade Capture &Validations

**Trade Capture Report as Notification**

The Trading System acquires a trade right after the trade is executed. The Trading System validates the legality of the trade. The Trading System directly sends trade capture reports to both sides of trade participants. Upon receipt of the report, FX Trading Member will send an acknowledgement message to the Trading System.



| **Descriptions of the BusinessActivities** | |
| --- | --- |
| **Business Activities** | **Initiator** |
| **Trade Acquisition:** After a trade is executed, the Trading System will immediately locate and acquire the trade. | **Trading System** |
| **Send Capture Report:** The Trading System will send a capture report to both sides of trade participants to notify their trades have been executed with validity. | **Trading System** |
| **Report Received:** FX trading member receives the capture report delivered by the trading system. | **FX Trading Member** |
| **Send Capture Ack:** A capture report acknowledgement will immediately be sent by FX Trading Member to inform Trading System that the capture report has been received. For each capture report, there will be one report acknowledgement. | **FX Trading Member** |
| **Ack Received:** The trading system receives the acknowledgement delivered by FX trading member. | **Trading System** |

**Request Trade Capture Report**

FX Trading Member sends a capture request to the Trading System to request trade capture reports. Once the Trading System receives the request, it will send one or a number of Trade Capture Reports back to FX Trading Members. Upon receipt of a trade capture report, FX Trading Member will send an acknowledgement message to the Trading System.



| **Descriptions of the BusinessActivities** | |
| --- | --- |
| **Business Activities** | **Initiator** |
| **Send Query Request:** FX Trading Member sends a query request to claim capture reports for a trade or trades for a period of time. | **FX Trading Member** |
| **Request Received:** The trading system receives the request delivered by FX trading member. | **Trading System** |
| **Send Trade Capture Reports:** The Trading System will send a capture report to both sides of trade participants to notify their trades have been executed with validity. | **Trading System** |
| **Reports Received:** FX trading member receives reports delivered by FX trading system. | **FX Trading Member** |
| **Send Capture Ack:** A capture report acknowledgement will immediately be sent by FX Trading Member to inform the Trading System that a capture report has been received. For each capture report, there will be one report ack. | **FX Trading Member** |
| **Ack Received:** The trading system receives the acknowledgement delivered by FX trading member. | **Trading System** |

# BusinessTransactions

This section describes the message flows based on the activity diagrams documented above. It shows the typical exchanges of information in the context of a BusinessTransaction.

## Trade Capture &Validations

### Trade Capture Report as Notification

The Trading System acquires a trade right after the trade is executed. FX Trading System validates the legality of the trade. The Trading System directly sends trade capture reports to both sides of trade participants. Upon receipt of the report, FX Trading Member will send an acknowledgement message to the Trading System.



### Request Trade Capture Report

FX Trading Member sends a capture request to the Trading System to request a trade capture report. Once the Trading System receives the request, it will send one or a number of trade capture reports back to FX Trading Member. Upon receipt of a trade capture report, FX Trading Member will send an acknowledgement message to the Trading System.



# Examples

This section describes business examples of the use of the various MessageDefinitions. Each example starts with a description of the example scenario followed by the actual MessageInstance.

## Trade Capture Report as Notification- fxtr.031.001.01/fxtr.033.001.01

Description

The example pictures a forward exchange transaction capture process. It describes a process that trade reports are captured by FX trading members from the trading system. The trading system will check the validity of a trade firstly after trading members execute the trade. Then it will send the trade reports to both sides of FX trading members. A capture report acknowledgement will immediately be sent by an FX trading member to inform trading system that the capture report has been received.

Example

Terms

CGB (China Guangfa Bank) and SPDB (Shanghai Pudong Development Bank) have made a forward exchange transaction. After the trade is executed, the trading system immediately acquires and validates the trade details. It is assumed trade validation has been successfully processed.

The trade details are as follows:

FX Trading Members: CGB, SPDB

Trading ID: 5.1.19050456

Trading Date & Time: 2014-05-13 10:12:54

Value Date: 2014-5-15

Settlement Date: 2014-06-16

Trading Currency: USD

Settlement Currency: CNY

Execution Price: 6.159300

Forward Points: -31.00

Valuation Rate: 6.1624

Last Quantity: 2300000000.00

Calculated CCY Last Quantity: 141663900.00

Message Instance

ForeignExchangeTradeCaptureReport:

<FXTradCaptrRpt>

<Hdr>

<FrmtVrsn>v1.0</FrmtVrsn>

<XchgId>123</XchgId>

<InitgPty>

<Id>AMQADF</Id>

</InitgPty>

<RcptPty>

<Id>CFETS-FX-ADF</Id>

</RcptPty>

<MsgSeqNb>1969</MsgSeqNb>

<CreDtTm>2014-05-13T10:12:55</CreDtTm>

</Hdr>

<RptId>

<Id>REQUEST-CFETS-FA-ADF-BENCH</Id>

<CreDtTm>2014-05-13T10:12:55.159</CreDtTm>

</RptId>

<TradgSdId>

<BuyrOrSellrInd>BYER</BuyrOrSellrInd>

<InitrInd>TAKE</InitrInd>

<TradPtyId>

<PtySrc>BASC</PtySrc>

<TradPtyId>290003431000000106001</TradPtyId>

</TradPtyId>

<SubmitgPty>

<PtyId>

<IdTp>SLNF</IdTp>

<Id>ANZC</Id>

</PtyId>

<AcctId>

<AcctTp>CBDC</AcctTp>

<Id>

<Prtry>

<Id>624356578798</Id>

</Prtry>

</Id>

</AcctId>

</SubmitgPty>

</TradgSdId>

<CtrPtySdId>

<BuyrOrSellrInd>SLLR</BuyrOrSellrInd>

<InitrInd>MAKE</InitrInd>

<TradPtyId>

<PtySrc>BASC</PtySrc>

<TradPtyId>100001244010000102001</TradPtyId>

</TradPtyId>

<SubmitgPty>

<PtyId>

<IdTp>SLNF</IdTp>

<Id>BNZC</Id>

</PtyId>

<AcctId>

<AcctTp>CBCC</AcctTp>

<Id>

<Prtry>

<Id>145465877</Id>

</Prtry>

</Id>

</AcctId>

</SubmitgPty>

</CtrPtySdId>

<TradDtl>

<TradId>5.1.19050456</TradId>

<DtAndTm>2014-05-13T10:12:54.123</DtAndTm>

<FXTradPdct>FORW</FXTradPdct>

<TradgCcy>USD</TradgCcy>

<SttlmCcy>CNY</SttlmCcy>

<TradgMtd>LIOR</TradgMtd>

<TradgMd>QUDR</TradgMd>

<ClrMtd>NEMA</ClrMtd>

<ExctnTp>NEWW</ExctnTp>

<Symb>USD.CNY</Symb>

<PlcOfConf>CFETS</PlcOfConf>

<TxTm>2014-05-13T10:15:35.159</TxTm>

<FXDtls>

<ExctnPric Ccy="CBI">6.159300</ExctnPric>

<LastQty Ccy="ABC">2300000000.00</LastQty>

<SttlmTp>MONT</SttlmTp>

<SttlmDt>2014-06-16</SttlmDt>

<ValtnRate>

<XchgRate>6.1624</XchgRate>

</ValtnRate>

<FwdPts>-31.00</FwdPts>

<ClctdCtrPtyCcyLastQty Ccy="ICH">141663900.00</ClctdCtrPtyCcyLastQty>

<ValDt>2014-05-15</ValDt>

<RskAmt Ccy="BCN">2300000000.00</RskAmt>

<SctyId>

<SctyIdSrc>CDCO</SctyIdSrc>

<SctyId>1000098989843</SctyId>

</SctyId>

<DltaInd>1</DltaInd>

</FXDtls>

</TradDtl>

<ReqRspndr>0</ReqRspndr>

</FXTradCaptrRpt>

ForeignExchangeTradeCaptureReportAcknowledgment:

<FXTradCaptrRptAck >

<AckId>

<Id>ACk-CFETS-FA-ADF-AENCH</Id>

<CreDtTm>2014-05-13T10:12:56.159</CreDtTm>

</AckId>

<TradId>5.1.19050456</TradId>

<Sts>PACK</Sts>

</FXTradCaptrRptAck>

# Revision Record

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Revision** | **Date** | **Author** | **Description** | **Sections affected** |
| September 2014 | 25/09/2014 | CFETS | First version | All |
| January 2015 | 29/01/2015 | CFETS | Second version | All |
| April 2015 | 21/04/2015 | ISO 20022 RA | Final editing before SEG submission | All |
| September 2015 | 24/09/2015 | CFETS | Updated the Section 7 examples | Section 7 |
| February 2016 | 22/02/2016 | ISO 20022 RA | Final editing before publication | All |
|  |  |  |  |  |

**Disclaimer**:

Although the Registration Authority has used all reasonable efforts to ensure accuracy of the contents of the iso20022.org website and the information published thereon, the Registration Authority assumes no liability whatsoever for any inadvertent errors or omissions that may appear thereon. Moreover, the information is provided on an "as is" basis. The Registration Authority disclaims all warranties and conditions, either express or implied, including but not limited to implied warranties of merchantability, title, non-infringement and fitness for a particular purpose.

The Registration Authority shall not be liable for any direct, indirect, special or consequential damages arising out of the use of the information published on the iso20022.org website, even if the Registration Authority has been advised of the possibility of such damages.

**Intellectual Property Rights**:

The ISO 20022 MessageDefinitions described in this document were contributed by CFETS. The ISO 20022 IPR policy is available at www.ISO20022.org > About ISO 20022 > Intellectual Property Rights.