



# **Factored Securities**

## **Settlements Market Practice Working Group**

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## Document History

Version #	Change Date	Description of Change	Page
1.4	April 2008	Update Market Practice into template	
1.5	Oct 15, 2008	Added discussion items, TIPs clarifications, & Unit Bonds that are linked to floaters	
1.6	February 11 <sup>th</sup> , 2009	Document updated to remove mark-up comments and remaining open questions based on conference call. Ready for zoomerang vote.	



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## 1.0 <Background>

### 1.1 <Scope>

This document is intended to establish the position of the US NMPG (ISITC - Settlements Working Group) regarding settlement instructions relating to factored securities. The market practice address instructions and communication between Investment Managers and their Custodian and/or Accounting Service providers.

Factored securities are debt instruments that have a factor that is used in the calculation of net money and market value. How the factor is used depends on the product type. It should be noted that each product type requires different processing appropriate to its category.

#### Examples of Factored Securities:

- ♣ Asset Backed Securities (ABS)
- ♣ Corporate Bonds with Sinking Fund Provisions
- ♣ Collateralized Mortgage Obligations (CMO)
- ♣ Mortgage-Backed Securities (MBS)
- ♣ Treasury Inflation Protected Securities (TIPS) issued by the U.S. Treasury
- ♣ Linkers – Any type of Inflation Protected Security issued by the U.S. Treasury or other entity

The first part of the document will discuss business requirements. The second part of the documents will provide ISO 15022 examples.

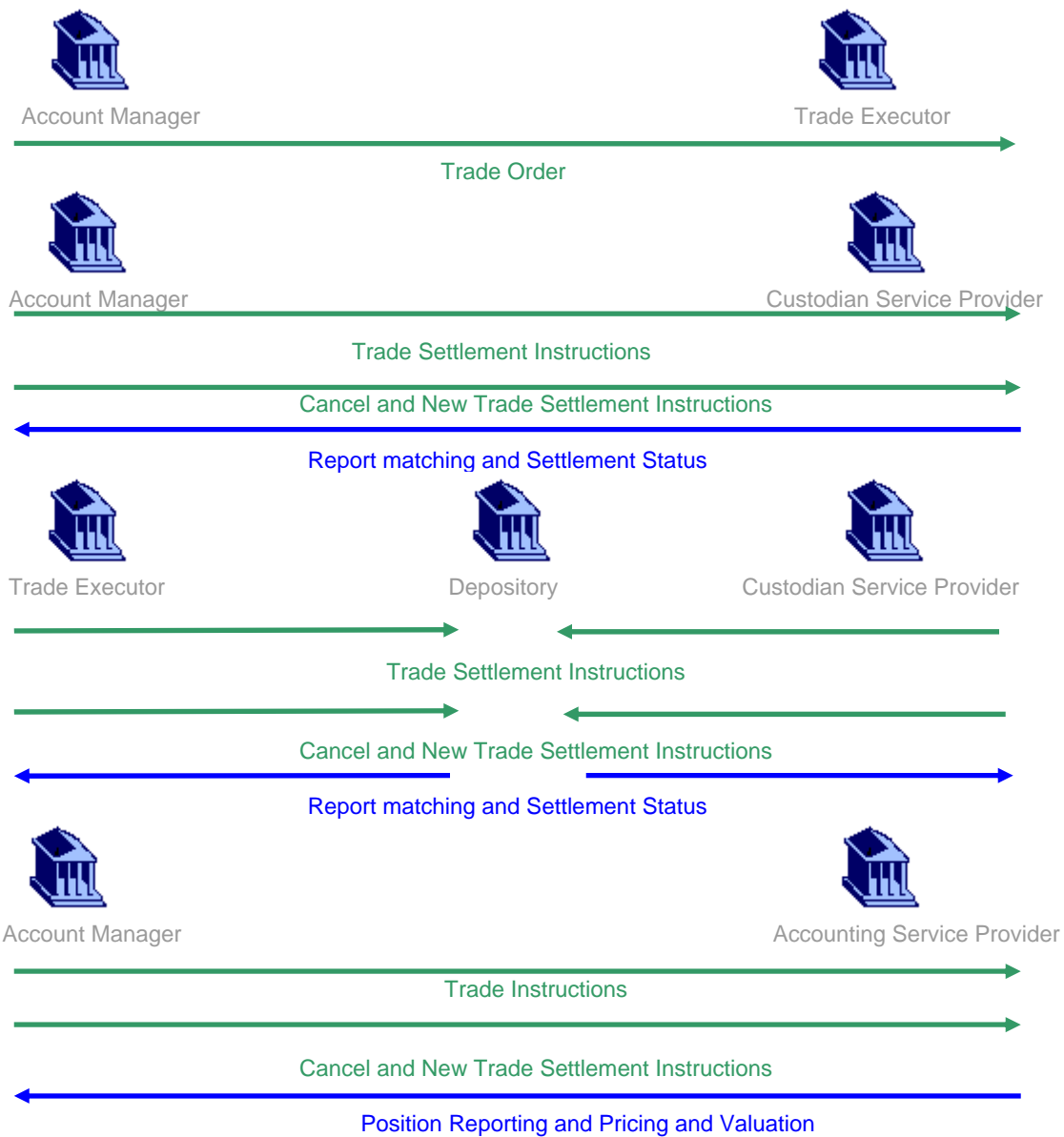
### 1.2 <Definitions>

Factor	A number that is used in the calculation of net money or market value for a debt instrument
Index Rate or Ratio Factor	The factor used to adjust the principal in a TIPS or Linker security
Pay down Factor	The factor used to denote the amount of principal paid down by the borrower of the loan or mortgage
Sinking Fund Factor	The factor used to denote the amount of debt that has been called back to the sinking fund
Inflation Linked Bonds or linkers	Usually treasury bonds where the principal is indexed to inflation
Unit Bonds	A bond that trades in units, not in face amount
Original Face	Face amount or quantity of a debt instrument <u>not</u> adjusted by a factor
Current Face	The product of the original face multiplied by the factor for a debt instrument
TIPS	Treasury-Inflation Protected Securities (TIPS) are securities whose principal is tied to the Consumer Price Index (CPI). With inflation, the principal increases. With deflation, it decreases. When the security matures, the U.S. Treasury pays the original or adjusted principal, whichever is greater. TIPS pay interest at a fixed rate. However, for coupon payments, the rate is applied to the adjusted principal, so interest payments can vary in amount from one period to the next. If inflation occurs, the interest payment increases. In the event of deflation, the interest payment decreases.

### 1.3 <Actors and Roles>

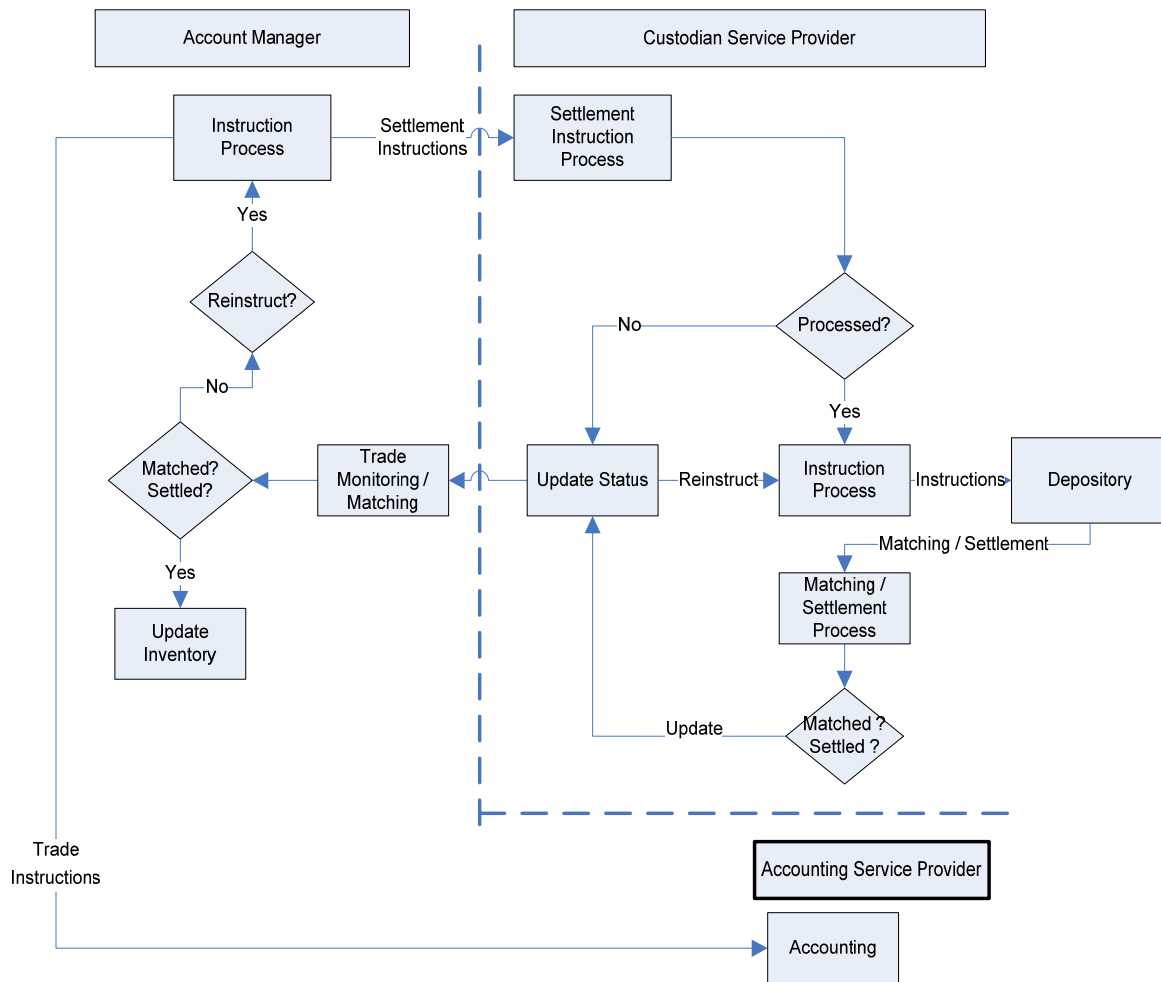
Account Manager	Trade Executing Party	Custodian Service Provider	Depository	Accounting Service Provider
Investment Manager / Hedge Funds	Broker Dealer	Global Custodian Prime Broker	Sub-Custodian Securities Depository	Accounting Agent

### 1.4 <Sequence Diagrams>





### 1.5 <Activity Diagram>



For securities that require factor updates, the activity process is followed again, but only money moves, not the security.



## 2.0 <Business Definition>

### 2.1 <Business Data Requirements>

#### Mortgage / Asset Backed Securities

Business Element	Comments
Original Face	Mandatory
Current Face	Mandatory
Pay down Factor	Optional

#### Corporate Bonds w/ Sinking Funds

Business Element	Comments
Original Face	Mandatory
Current Face	Mandatory
Sinking Fund Factor	Optional

#### TIPs/Linkers

Business Element	Comments
Original Face	Mandatory for par bonds
Units	Mandatory for unit bonds
Current Face	Mandatory
Index Rate /Ratio Factor	Mandatory

### 2.2 < Market Practice Rules>

If both original and current face are provided in a message using proper formats, it is the responsibility of the receiver to use the proper one for any downstream processing (e.g. sending to local CSD)

#### Mortgage / Asset Backed Securities

The Original Face and Current Face should both be provided, even if the factor is equal to one.

#### Corporate Bonds w/ Sinking Funds

The Original Face and Current Face should both be provided, even if the factor is equal to one.

#### Linkers/TIPs

The Original Face or Units, and Current Face should be provided.



The price used for TIPS is the un-inflated price. This is also known as the 'clean' or "market" price. This price does not include the factor. (Do not use the inflated price.)

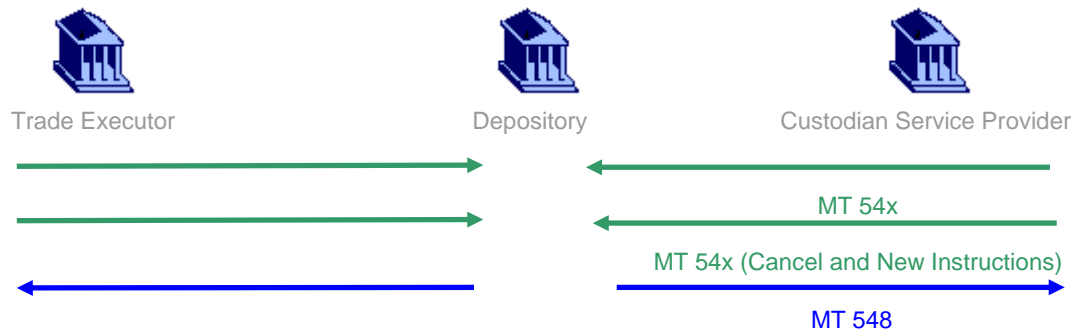
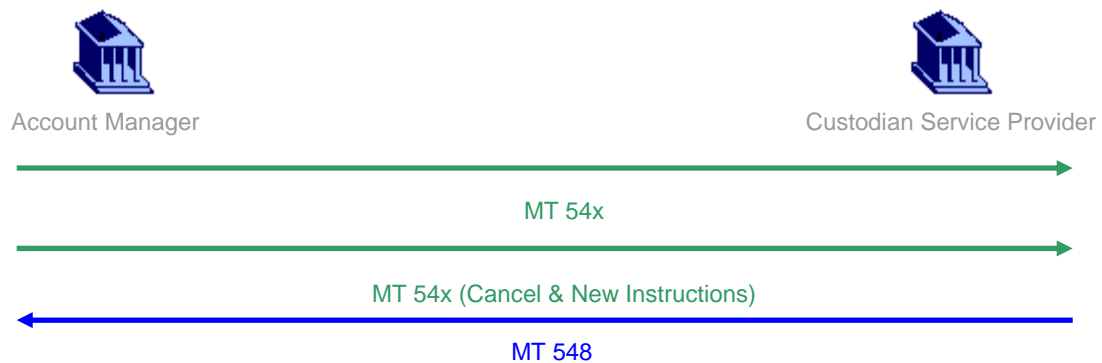
The index rate/ratio or inflation factor used for Linkers is the factor associated with settle date of the trade.

Net Money = ("Original Face" x "Un-inflated Price" x "Settle Date Inflation Factor") +  
"Accrued Interest"

**3.0 <Appendix>**

**<ISO 15022 Syntax>**

**1 <Message Sequence Diagram >**





## 2 <Message Usage Rules>

### **Linkers/TIPs**

The Original Face or Units and Current Face should be provided.

The use of 92A::INDX is recommended for Linkers/Tips

### **Mortgage / Asset Backed Securities – Factor Updates**

The Original Face and Current Face should both be provided, even if the factor is equal to one.

When trading factored securities, the current factor is not always known at the time of the trade, even though this current factor may be effective. When this is the case, the market convention is to initially settle the trade with the previous or most current known factor and then adjust for the difference when the current factor becomes available. It is the net amount of the trade that needs to be adjusted due to the updated factor:

Original face \* current factor = current face

Current face \* trade price +/- interest = net amount of trade

### **Pre-settlement**

For the scenario in which the “current” factor becomes known on or prior to contractual settlement date, the normal cancel and rebook process should be followed. In this case, the Account Manager will cancel the trade and send across new trade and settlement instructions. This new trade will have the new current factor and additionally reflect the new net amount. No special processing by the Custodian Service Provider is required, and no special (post settlement) factor update identifiers should be used.

### **Post-settlement**

The more complex scenario is in which the current factor does not become known until after contractual settlement date of the trade, in this case, specific processing is required since the securities (the trade) would have already settled.

Once a trade has been settled is not able to be cancelled, therefore the normal cancel and rebook messages are not appropriate.

In this scenario, the original face amount of the trade has been settled correctly, but because of the recent factor update, the net amount of money associated with the trade is incorrect, and needs to be adjusted. Because of this, the Account Manager will need to cancel the previously sent settlement / trade instructions, and resend new settlement / trade instructions to both the Custodian and Accounting Service Providers (most times the same party).

The following additional business elements are required to be included in the cancel and new settlement / trade instructions for post settlement factor updates:

- 1) Qualifier to indicate that the cancel and new trade are part of a factor update
- 2) Reference number to link the new instructions (which include the new factor) to the original instructions (which reflected the old factor)
- 3) The new settlement / trade instructions also need to include the instructions to move cash, reflective of the difference in the net amount of the trade.

**Note:** A factor adjustment is not a corporate event.



**Messaging Sequence**

1. Send a cancel for the original trade
  - a. Identify the cancel as a Factor Update (In ISO 15022 - FCTA). This allows the receiving party to know you aren't really canceling a settled trade, rather that a new instruction with a factor update is being provided.
2. Send the rebook trade (with the proper net money)
  - a. Identify it as a Factor Update.
  - b. Include a Cash Sequence to provide instructions of where to pay the cash difference.
    - i. If the trade originally settled DTCC, then you will be using an SPO charge  
95R ::ACCW/DTCYID/<DTC Identifier>  
If the trade originally settled Fedwire, then you will be using ABA Number  
95R ::ACCW/USFW/<ABA Number> and 97A::CASH/<Cash Account>
  - c. Include a link to the original trade that has settled, so the receiving party can adjust their records appropriately

Education: It should be noted that Custodians receive SPO charges and you should check with them how they process them.

**3 <Message Structure and Requirements>**

<This section should include a table/matrix to help display the data elements expected within the message, and as well and specific needs or requirements for each.>

Index	Message Item	Definition	Mult.	Syntax	Usage Rule / Comments
1.0	Message		[1..1]		
2.0	Identification		[1..1]		



#### 4 <Sample Message Format>

##### Example: Linker/TIPS Factored Security

:16R:GENL  
:20C::SEME//12345TIPS  
:23G:NEWM  
:16S:GENL  
:16R:TRADDET  
:98A::SETT//20070118  
:98A::TRAD//20070117  
:90A::DEAL//PRCT/99,121093750           ↓ Uninflated price  
:35B:ISIN US1234567891  
TREASURY (CPI) NOTE  
:16R:FIA  
:12A::CLAS/ISIT/TIPS  
:98A::MATU//20170115  
:98A::ISSU//20070116  
:92A::INTR//2,37500000  
**:92A::INDX//0,99986000**           ↓ Index Factor associated with settle date for current face calculation  
:16S:FIA  
:16S:TRADDET  
:16R:FIAC  
**:36B ::SETT//FAMT//5440000,0000**  
**:36B::SETT//AMOR/5439238,4000**  
:97A::SAFE//TEST ACCOUNT  
:16S:FIAC  
:16R:SETDET  
:22F::SETR//TRAD  
:16R:SETPRTY  
:95P::PSET//FRNYUS33  
:16S:SETPRTY  
:16R:SETPRTY  
:95R::DEAG/USFW/000001234  
:97A::SAFE//TSY  
:16S:SETPRTY  
:16R:SETPRTY  
:95R::SELL/DTCYID/00001234  
:16S:SETPRTY  
:16R:AMT  
:19A::SETT//USD5392503,16  
:16S:AMT  
:16R:AMT  
:19A::DEAL//USD5391432,59  
:16S:AMT  
:16R:AMT  
:19A::ACRU//USD1070,57  
:16S:AMT  
:16S:SETDET



**Example: CORPORATE w/ SINKING FUND**

:16R:GENL  
:20C::SEME//12345SINK  
:23G:NEWM  
:16S:GENL  
:16R:TRADDET  
:98A::SETT//20070308  
:98A::TRAD//20070305  
:90A::DEAL//PRCT/104,500000000  
:35B:ISIN US1234567891  
CORPORATE BOND  
:16R:FIA  
:12A::CLAS/ISIT/CORP  
:98A::MATU//20181215  
:98A::ISSU//19990302  
:92A::INTR//7,41600000  
**:92A::CUFC//0,72450000**  
:16S:FIA  
:16S:TRADDET  
:16R:FIAC  
**:36B::SETT//AMOR/72450,0000**  
**:36B ::SETT//FAMT//100000,0000**  
:97A::SAFE//TEST ACCOUNT  
:16S:FIAC  
:16R:SETDET  
:22F::SETR//TRAD  
:16R:SETPRTY  
:95P::PSET//DTCYUS33  
:16S:SETPRTY  
:16R:SETPRTY  
:95R::REAG/DTCYID/00001234  
:16S:SETPRTY  
:16R:SETPRTY  
:95R::BUYR/DTCYID/0000124  
:16S:SETPRTY  
:16R:AMT  
:19A::SETT//USD76949,00  
:16S:AMT  
:16R:AMT  
:19A::DEAL//USD75710,25  
:16S:AMT  
:16R:AMT  
:19A::ACRU//USD1238,75  
:16S:AMT  
:16S:SETDET



### Example: MBS Factored Security

:16R:GENL  
:20C::SEME//12345MBS  
:23G:NEWM  
:16S:GENL  
:16R:TRADDET  
:98A::SETT//20060920  
:98A::TRAD//20060918  
:90A::DEAL//PRCT/100,816406250  
:35B:ISIN US1234567891  
GNMA 30YR  
:16R:FIA  
:12A::CLAS/ISIT/GN  
:98A::MATU//20341015  
:98A::ISSU//20041001  
:92A::INTR//6,00000000  
**:92A::CUFC//0,73336721**  
:13B::POOL//123456  
:16S:FIA  
:16S:TRADDET  
:16R:FIAC  
**:36B::SETT//AMOR/161735,3400**  
**:36B::SETT//FAMT/220538,0000**  
:97A::SAFE//TEST ACCOUNT  
:16S:FIAC  
:16R:SETDET  
:22F::SETR//TRAD  
:16R:SETPRTY  
:95P::PSET//FRNYUS33  
:16S:SETPRTY  
:16R:SETPRTY  
:95R::REAG/USFW/000001234  
:97A::SAFE//MBS  
:16S:SETPRTY  
:16R:SETPRTY  
:95R::BUYR/DTCYID/00001234  
:16S:SETPRTY  
:16R:AMT  
:19A::SETT//USD163567,92  
:16S:AMT  
:16R:AMT  
:19A::DEAL//USD163055,76  
:16S:AMT  
:16R:AMT  
:19A::ACRU//USD512,16  
:16S:AMT  
:16S:SETDET



### Example: Factor Update Example Cancel - Post Settlement

:16R:GENL  
:20C::SEME//12345CANCEL  
**:23G:CANC**  
:16R:LINK  
**:20C::PREV//INITIALTRADE**  
:16S:LINK  
:16S:GENL  
:16R:TRADDET  
:98A::SETT//20070305  
:98A::TRAD//20070228  
:90A::DEAL//PRCT/100,906250000  
:35B:ISIN US1234567891  
FGOLD 30YR GIANT  
:16R:FIA  
:12A::CLAS/ISIT/FHL  
:98A::MATU//20370301  
:98A::ISSU//20070201  
:92A::INTR//6,00000000  
:92A::CUFC//1,00000000  
:13B::POOL//G02669  
:16S:FIA  
:16S:TRADDET  
:16R:FIAC  
:36B::SETT//FAMT/35000000,0000  
:36B::SETT//AMOR/35000000,0000  
:97A::SAFE//TEST  
:16S:FIAC  
:16R:SETDET  
**:22F::SETR//FCTA**  
:16R:SETPRTY  
:95P::PSET//FRNYUS33  
:16S:SETPRTY  
:16R:SETPRTY  
:95R::DEAG/USFW/000001234  
:97A::SAFE//MBS BROKER  
:16S:SETPRTY  
:16R:SETPRTY  
:95R::SELL/DTCYID/00001234  
:16S:SETPRTY  
:16R:AMT  
:19A::SETT//USD35340520,83  
:16S:AMT  
:16R:AMT  
:19A::DEAL//USD35317187,50  
:16S:AMT  
:16R:AMT  
:19A::ACRU//USD23333,33  
:16S:AMT  
:16S:AMT  
:16S:SETDET



### Example: Factor Update Example Rebook Fedwire – Post Settlement

:16R:GENL  
:20C::SEME//REBOOK  
:23G:NEWM  
:16R:LINK  
**:20C::PREV//ORIGINAL TRADE**  
:16S:LINK  
:16S:GENL  
:16R:TRADDET  
:98A::SETT//20070305  
:98A::TRAD//20070228  
:90A::DEAL//PRCT/100,906250000  
:35B:ISIN US1234567891  
FGOLD 30YR GIANT  
:16R:FIA  
:12A::CLAS/ISIT/FHL  
:98A::MATU//20370301  
:98A::ISSU//20070201  
:92A::INTR//6,00000000  
:92A::CUFC//0,99470095  
:13B::POOL//G02669  
:16S:FIA  
:16S:TRADDET  
:16R:FIAC  
:36B::SETT//FAMT/35000000,0000  
:36B::SETT//AMOR/34814533,2500  
:97A::SAFE//TEST  
:16S:FIAC  
:16R:SETDET  
**:22F::SETR//FCTA**  
:16R:SETPRTY  
:95P::PSET//FRNYUS33  
:16S:SETPRTY  
:16R:SETPRTY  
:95R::DEAG/USFW/0000000001  
:97A::SAFE//BROKERMBS  
:16S:SETPRTY  
:16R:SETPRTY  
:95R::SELL/DTCYID/00001234  
:16S:SETPRTY  
**:16R:CSHPRTY**  
**:95R::ACCW/USFW/000000000**  
**:16S:CSHPRTY**  
**:16R:CSHPRTY**  
**:95P::BENM//BICAUS33XXX**  
**:97A::CASH//00000000**  
**:16S:CSHPRTY**  
:16R:AMT  
:19A::SETT//USD35153249,65  
:16S:AMT  
:16R:AMT  
:19A::DEAL//USD35130039,96  
:16S:AMT  
:16R:AMT  
:19A::ACRU//USD23209,69  
:16S:AMT  
:16R:AMT  
**:19A::ANTO//USD187271,18**  
:16S:AMT  
:16S:SETDET



## Example: Factor Update Example Rebook DTC – Post Settlement

:16R:GENL  
:20C::SEME//REBOOK  
:23G:NEWM  
:16R:LINK  
**:20C::PREV//ORIGINAL TRADE**  
:16S:LINK  
:16S:GENL  
:16R:TRADDET  
:98A::SETT//20070308  
:98A::TRAD//20070305  
:90A::DEAL//PRCT/104,500000000  
:35B:ISIN US1234567891  
CORPORATE BOND  
:16R:FIA  
:12A::CLAS/ISIT/CORP  
:98A::MATU//20181215  
:98A::ISSU//19990302  
:92A::INTR//7,41600000  
:92A::CUFC//0,600000000  
:16S:FIA  
:16S:TRADDET  
:16R:FIAC  
:36B ::SETT//FAMT//100000,0000  
:36B::SETT//AMOR/60000,0000  
:97A::SAFE//TEST ACCOUNT  
:16S:FIAC  
:16R:SETDET  
**:22F::SETR//FCTA**  
:16R:SETPRTY  
:95P::PSET//DTCYUS33  
:16S:SETPRTY  
:16R:SETPRTY  
:95R::REAG/DTCYID/00001234  
:16S:SETPRTY  
:16R:SETPRTY  
:95R::BUYR/DTCYID/0000124  
:16S:SETPRTY  
**:16R:CSHPRTY**  
**95R ::ACCW/DTCYID/<DTC Identifier>**  
**:70E::PACO//Contact Name 111-111-1111**  
**:16S:CSHPRTY**  
:16R:AMT  
:19A::SETT//USD63938,75  
:16S:AMT  
:16R:AMT  
:19A::DEAL//USD62700,00  
:16S:AMT  
:16R:AMT  
:19A::ACRU//USD1238,75  
:16S:AMT  
**:16R:AMT**  
**:19A::ANTO//USD13010.25**  
**:16S:AMT**  
:16S:SETDET