



## Settlement of CDS Agreements Contained in CDS-Products

( This report is an English translation of the original report in Japanese. )

Rating and Investment Information, Inc. (R&I) has revised the rating methodology reported in the press release “Settlement of CDS Agreements Contained in CDS Products” dated October 23, 2007.

Traditionally, settlement following a Credit Event stipulated in the 2003 ISDA Credit Derivatives Definitions prepared by the International Swaps and Derivatives Association, Inc. (ISDA) has been performed between the concerned parties to a CDS agreement by the parties themselves. Settlements following a Credit Event in conjunction with recent large-scale bankruptcies, however, have been executed using an auction mechanism under nearly identical conditions among parties to vastly different contracts rather than only between the concerned parties to an each contract. Now such settlement procedure is no longer unusual. The ISDA Credit Derivatives Determinations Committees and Auction Settlement Supplement to the 2003 ISDA Credit Derivatives Definitions (2009 Supplement), which added the Auction Settlement procedure to the 2003 ISDA Credit Derivatives Definitions as a model, was released on March 12, 2009. R&I has included its view in the revised methodology when the Auction Settlement procedure has been adopted.

R&I will apply the approach discussed in this report for ratings concerning settlement of credit default swap (CDS) agreements contained in products (CDS-Products) involving synthetic CDOs and FTD products to CDS-Products.

### 0. Introduction

R&I has released its rating methodology concerning CDS-Products through a variety of reports (Note 1). This report summarizes the issues concerning settlement of the CDS agreements that are indispensable to structuring CDS-Products, and R&I's rating methodology.

CDS-Products are products for trading the credit risk of a Reference Entity specified by a related CDS agreement. The model agreement prepared by the International Swaps and Derivatives Association, Inc. (ISDA), and the 2003 ISDA Credit Derivatives Definitions used in the agreement, are normally adopted for CDS agreements. In this report, the terms starting with capital letters in this report are identical to the terminology in the 2003 ISDA Credit Derivatives Definitions and 2009 Supplement. Please refer to the 2003 ISDA Credit Derivatives Definitions and 2009 Supplement in addition to this report.

This report summarizes, from the qualitative point of view of the agreement, R&I's rating points concerning the settlement procedure when a Credit Event has occurred at a Reference Entity as prescribed in the related CDS agreement. Please refer to the R&I press release “R&I Tranche Pad Version 1.0 Technical Document” dated April 27, 2007 concerning R&I's quantitative assessment points.

### 1. CDS agreement evaluation points

In the CDS agreement, it is important to confirm the “subject definitions for judging whether a Credit Event has occurred at a Reference Entity” and the “settlement method when an effective Credit Event has occurred under the related CDS agreement.” The former provides for “determination of a Credit Event,” while the latter provides for “settlement following occurrence of a Credit Event.” R&I's evaluation points concerning each of these matters are summarized below.

### 1.1. Determination of a Credit Event

To trade the credit risk concerning a specific Reference Entity during a certain period of time, the “definition of Credit Event” and “definition of the Obligation for determining a Credit Event” must be provided in the CDS agreement and monitored. This enables the protection seller and protection buyer to determine a Credit Event at the Reference Entity.

#### 1.1.1. Definition of a Credit Event

The CDS agreements incorporated in CDS-Products rated by R&I frequently specify the three events shown in Figure 1 as definitions of Credit Event.

Figure 1: Definitions of Credit Event (Japanese Corporate)

Item	Details
Bankruptcy	Legal bankruptcy
Failure to Pay	The failure by a Reference Entity to make, when and where due, any payments in an aggregate amount of not less than the Payment Requirement under one or more Obligations Payment Requirement: 100 million yen or equivalent amount in another currency
Restructuring	Revision of the terms for an aggregate amount of not less than the Default Requirement Default Requirement: 1,000 million yen or equivalent amount in another currency

For the basic data on the Probability of Default (PD) for setting the standard for R&I Tranche Pad, its CDO rating model, R&I uses actual default rate data for definitions that are nearly identical to the three credit events shown in Figure 1.

#### 1.1.2. Obligation for determining whether a Credit Event has occurred

In order to determine whether a Credit Event has occurred at a Reference Entity, it will be necessary to define the Obligation which is one of the criteria for the evaluation. This definition of Obligation uses the concepts “Obligation Category” and “Obligation Characteristics”. The scope of the Obligation for determining a Credit Event is defined by specifying these in the related CDS agreement.

For related CDS agreements incorporated in CDS-Products rated by R&I, Borrowed Money frequently is specified as Obligation Category. The priority of the obligation, such as “Subordinated” or “Not Subordinated”, is set as Obligation Characteristics. Because the occurrence of a Credit Event is not easily influenced by the senior or subordinated ranking, in every quantitative analysis R&I will apply the probability of default (PD) corresponding to the Issuer Rating of the Reference Entity.

Furthermore, when the transaction agreement does not refer to the ISDA Credit Derivatives Definitions, R&I will confirm whether there are differences with the ISDA Credit Derivatives Definitions, including the separately provided definitions of a credit event or the obligation, concerning the transaction agreement incorporated in the CDS-Products R&I will assign rating.

### 1.2. Settlement following a Credit Event

After a Credit Event has been confirmed, and the Conditions to Settlement such as notification among the parties to the related CDS agreement have been met, the protection seller will settle the CDS agreement by remitting to the protection buyer an amount equivalent to the loss resulting from the Credit Event of the Reference Entity. The seller will select a settlement procedure from among the three alternatives “Physical Settlement”, “Cash Settlement” and “Auction Settlement”. Each settlement procedure is summarized below.

#### 1.2.1. Physical Settlement

For Physical Settlement, the protection buyer shall transfer the protection seller physical assets, with the equivalent face value of the notional principal amount of the CDS agreement. Such assets will be selected from the Deliverable Obligation specified in the CDS agreement after the Conditions

to Settlement following a Credit Event have been met. The protection seller, on the other hand, shall pay to the protection buyer cash in an amount equivalent to the notional principal amount of the related CDS agreement. As a result, viewed on a net basis, an amount equivalent to the loss related to the Reference Entity is remitted to the protection buyer by the protection seller.

As with the Obligation for determining a Credit Event, the designation of the Deliverable Obligation is accomplished by specifying the Deliverable Obligation Category and Deliverable Obligation Characteristics, respectively. For CDS agreements incorporated in the CDS-Products rated by R&I, in many cases the Deliverable Obligation Category is specified as “Bond or Loan” and the Deliverable Obligation Characteristics is specified as “Not Subordinated”. When specifying “Subordinated” as the Deliverable Obligation Characteristics, or when specifying a subordinated obligation as the Reference Obligation, the recovery risk is reflected in the CDS-Product rating (Note 2).

#### 1.2.2. Cash Settlement

Cash Settlement is divided into two settlement procedures: “fixed recovery type” and “market price reference type”.

##### ■ Fixed recovery type

For a fixed recovery type, the settlement after a Credit Event uses a fixed recovery rate set by the agreement beforehand to determine the final loss amount the protection seller will sustain. Depending on the level of the recovery rate, in some cases R&I will incorporate the recovery risk in the CDS-Product rating.

##### ■ Market price reference type

For a market price reference type the Reference Obligation for calculating the protection seller's final loss amount for settlement after a Credit Event is provided beforehand in the agreement.

Following a Credit Event, after the Conditions to Settlement have been met the Calculation Agent prescribed by the related CDS agreement will obtain market prices (Note 3) from several Dealers, and determine the Final Price (percentage) for the Reference Obligation from the market prices. The protection seller will settle the agreement by paying to the protection buyer as the Cash Settlement Amount calculated by multiplying the related CDS agreement notional principal by the difference between the Reference Price (normally 100%) and the Final Price. When specifying a subordinated obligation as the Reference Obligation, R&I will incorporate the recovery risk in the CDS-Product rating (Note 2).

Market price reference type has some peculiarity not found in Physical Settlement. Under a related CDS agreement that adopts market price reference type, the Calculation Agent obtains the Final Price of the Reference Obligation from the market and establishes the protection seller's loss amount when a Credit Event has occurred at the Reference Entity. The point that must be carefully noted here is that the market price will vary if the mechanism until settlement (timing for obtaining market prices, frequency of obtaining market prices and conditions for obtaining market prices) is different, and even though the Reference Obligation is the same there is a possibility the final loss amount the protection seller will sustain will differ. R&I's rating points concerning this issue are summarized beginning in Section 2.

#### 1.2.3. Auction Settlement

“Auction Settlement” refers to a settlement procedure in which numerous market participants deliver cash or physical assets according to identical terms, rather than using a traditional settlement procedure based on individual CDS agreements, following a Credit Event. The amount that corresponds to the traditional settlement amount of a market price reference type Cash Settlement is determined using the Auction Final Price (expressed in %) corresponding to the price of the Deliverable Obligation that is decided by the auction.

The protection seller will settle the agreement by paying to the protection buyer the Auction Settlement Amount, the amount calculated by multiplying the related CDS agreement notional principal by the difference between the Reference Price (normally 100%) and the Auction Final Price.

If an auction is not held following a credit event, the parties will settle the CDS agreement

between themselves using either Cash Settlement or Physical Settlement.

## 2. Peculiarities of a market price reference type

As discussed above, under a market price reference type there is a possibility the amount of the protection seller's loss will differ depending upon differences in the timing, frequency and market conditions. With regard to the Reference Entity following a Credit Event, R&I believes it is necessary to specify the market price reference type mechanism, to ensure the "Cash Settlement Amount under the market price reference type" is not remarkably disadvantageous compared with the "amount of the Reference Entity's recovery rate of senior unsecured obligations." R&I has summarized examples of required measures concerning the "timing for obtaining market prices," "frequency of obtaining market prices" and "conditions for obtaining market prices," respectively, for market price reference type.

### 2.1. Timing for obtaining market prices

Valuation Date for obtaining market prices normally is the date when the number of business days specified in the related CDS agreement has passed after the date on which all Conditions to Settlement were satisfied.

R&I requires the Valuation Date (the first Valuation Date when multiple Valuation Dates have been selected in the related CDS agreement) be "a date at least 30 business days after all Conditions to Settlement have been satisfied." The reason is that immediately following a Credit Event, there is a possibility inappropriate market prices will be obtained because, for example, the market pertaining to the Reference Obligation will be in turmoil given the lack of information concerning the Reference Entity, and the information necessary for evaluation of the Reference Obligation is likely to be inadequate. In Japan, there is very little objective data concerning such conditions. Although no clear differences regarding price fluctuations could be discerned from movements in market prices of straight bonds after restructuring events at operating companies to which R&I had assigned ratings, the actual concern is the situation when market price cannot be obtained. In the case of legal bankruptcy, the uncertainties during the time from application for legal proceeding until a ruling to commence legal procedures are substantial. In Japan, the period from petitioning to begin corporate reorganization procedures until a ruling to begin reorganization procedures is roughly one month, while the period until a ruling for commencement of reorganization procedures under the Civil Rehabilitation Law is said to be about two weeks.

Therefore to enable the market price to be determined appropriately based on sufficient information, R&I requires Valuation Date (the first Valuation Date when multiple Valuation Dates have been selected) be "a date at least 30 business days after satisfying all Conditions to Settlement."

### 2.2. Frequency of obtaining market prices

There is a possibility the Reference Obligation's liquidity will decrease because of a Credit Event, making it difficult to obtain a market price on the Valuation Date. CDS agreements typically will include a scheme under which, when a market price cannot be acquired on the Valuation Date, efforts will be taken to obtain a market price during a certain period prescribed in the agreement beforehand, until the market price can be obtained. This makes it vitally important to ensure, to the extent possible, sufficient opportunities to obtain a market price, because the Final Price will be calculated as zero if a market price ultimately cannot be obtained. To ensure the opportunities to obtain a market price, R&I requires attempting to obtain a market price for ten consecutive business days when Single Valuation Date is adopted in the related CDS agreement and four consecutive business days when Multiple Valuation Dates are adopted, respectively. Moreover, even for any Valuation Date, R&I requires attempting to obtain a market price from at least five Dealers.

### 2.3. Conditions for obtaining market prices

Quotation Amount when requesting a market price from Dealers typically specifies an amount identical to the related CDS agreement notional principal. When the amount specified deviates from general business practices, however, Dealers submitting prices must present their prices by assuming amounts at which the Reference Obligation normally would not be traded. Accordingly, there is a possibility the prices will be lower than the market prices when Dealers are asked to present prices based on normal business practices, or obstacles including the inability to obtain a market price may arise, when Dealers are requested to present a price based on a procedure that

deviates from normal business practices. R&I requires an amount within a range that does not deviate from normal business practices when obtaining a market price.

Furthermore, to ensure the market price is not set unreasonably low, R&I requires selecting Dealers that actively trade the obligations included in the Reference Obligations and that are not parties to the related CDS agreement (including affiliated companies of the parties) and that are not Reference Entities at which a credit event has occurred as the Dealers to present a market price, specifying the Valuation Method to be Highest or Market (Highest is the most preferred), and not including accrued interest when requesting market price presentations.

### 3. Matters reflected in R&I ratings of CDS-Products

R&I's rating guidelines include the following activities when evaluating CDS agreements incorporated into CDS-Products.

#### 3.1. Rating points for "market price reference type"

For "market price reference type," R&I requires adopting the conditions in Sections 2.1 through 2.3 above. Because of the possibility the recovery amount will be disadvantageous following a Credit Event, when assigning a rating R&I will make a conservative judgment for products for which the measures required in Sections 2.1 through 2.3 are not taken. At the stage when concerns about default at a Reference Entity are small, however, R&I will not make a distinction in the rating, because of the large number of uncertainties concerning the differences in the settlement amount as a result of the method used to respond to the issues raised in Sections 2.1 through 2.3. When it has downgraded the Issuer Rating of a Reference Entity to BB+ or lower, and has judged the actions to address the issues in Section 2.1 through 2.3 to be unsuitable following a careful analysis, R&I will rate a CDS-Product after conservatively evaluating the scheme using a 0% recovery rate following a Reference Entity's Credit Event.

When it applies the evaluation methodology described in this section to a FTD product, for example, R&I will assign a rating that is one notch lower than the rating result for a FTD product based on Tranche Pad when the Issuer Rating of the Reference Entity is BB+ or lower.

#### 3.2. Evaluation of the Auction Settlement Amount

Under the market price reference type Cash Settlement discussed above, even under CDS agreements concerning the same reference entity, there is a possibility the amount of the protection seller's loss will differ depending upon differences in the timing for obtaining market prices, frequency of obtaining market prices and conditions for obtaining market prices after a Credit Event has occurred. On the other hand, under Auction Settlement, the amount of the protection seller's loss from settlement of CDS agreements concerning the same Reference Entity will be determined across the participants in accordance with an identical settlement procedure.

From the standpoint of the timing for obtaining market prices discussed in Section 2.1., the lack of information problem pointed out in 2.1. is eliminated in an auction because numerous market participants are assumed to participate simultaneously in the settlement, enabling the participants to understand the supply-demand picture for the Deliverable Obligation. Moreover, because numerous market participants will participate in auctions, from the standpoint of the frequency of obtaining market prices discussed in Section 2.2. auctions are expected to ensure sufficient opportunities to obtain a market price as noted in 2.2. Finally, from the standpoint of the conditions for obtaining market prices indicated in Section 2.3., R&I believes the Auction Final Price will reflect the market conditions properly, even though the requirement for participants discussed in Section 2.3. is not established.

When a decision has been made to hold an auction concerning Reference Entities at which a credit event has occurred, the auction will be held within 30 business days after the Conditions to Settlement have been met. R&I believes the "recovery amount based on an Auction Settlement" will not be disadvantageous compared with the "recovery amount of senior unsecured obligations of the Reference Entity."

#### 3.3. Other points to note

Even if the related CDS agreement incorporated in a CDS-Product uses Physical Settlement, some schemes (such as CDS-Products issued by SPC) must obtain a Deliverable Obligation price in order to settle the swap restructuring cost, for example, when the CDS-Product is redeemed.

Furthermore, if an auction is not held even though the specified settlement method is Auction Settlement, because the Credit Event was a Restructuring, for example, R&I considers that there is a possibility that the scheme will be settled after the Credit Event using market price reference type Cash Settlement. R&I's policy concerning such issues is to assign the rating of the CDS-Product as described in Section 3.1 after verifying R&I's requirement in Section 2.

Note 1: For details concerning R&I's rating methodology for CDS-Products, please refer to following URL.

<http://www.r-i.co.jp/eng/rating/st/methodology.html>

Note 2: For details concerning R&I's quantitative evaluation methodology for CDS-Products, please refer to "R&I Tranche Pad Version 1.0 Technical Document". This document (available only in Japanese) can be accessed using the URL shown in Note 1.

<http://www.r-i.co.jp/jpn/rating/st/methodology.html>

Note 3: The term "market price" described here means the price (Quotation) obtained from Dealers following a credit event, and differs from the meaning of "Market Value" as defined in the 2003 ISDA Credit Derivatives Definitions.

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