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F.5 Treatment of Credit Default Swaps: Classification by Type and Risk Category

Prepared by the Joint Financial and Payments Systems Task Team (FITT)

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F.5 Treatment of Credit Default Swaps[1]

The current guidance on the statistical reporting of credit default swaps (CDS) classifies CDS as being option-type. However, certain CDS characteristics are forward-type in nature which poses the question whether CDS should be reclassified as forward-type contracts in the next generation of statistical standards. This paper explores the characteristics of CDS and considers whether there are sufficiently strong grounds to recommend a change in classification from option-type to forward-type. While CDS clearly have some common characteristics with forward–type contracts (e.g., they have the potential to switch from asset to liability depending on market conditions), it was felt that there were insufficient grounds to propose a change to current classification. The decision not to change also took into consideration the impact that any change would have across other statistical and accounting guidelines, and the similarity between CDS and put options from the buyer's perspective. In addition, this guidance note (GN) makes a recommendation on supplementary breakdowns of financial derivatives by risk categories where credit derivatives would be separately identified.

SECTION I: THE ISSUE

BACKGROUND

1. Both the Australian Bureau of Statistics (ABS) and the IMF raised the issue of the apparent lack of clarity regarding the classification of credit default swaps (CDS) in the most recent generation of the international statistical standards.[2]

2. At present,[3] both *BPM6* and *2008 SNA* classify derivatives under two broad types of contract—option-type and forward-type.

> *BPM6* paragraph 5.85 broadly defines option-type contracts as follows:
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> ***5.85** In an **option contract (option**), the purchaser acquires from the seller a right to buy or sell (depending on whether the option is a call (buy) or a put (sell)) a specified underlying item at a strike price on or before a specified date. The purchaser of an option pays a premium to the writer of the option. In return, the buyer acquires the right but not the obligation to buy (call option) or sell (put option) a specified underlying item (real or financial) at an agreed-on contract price (the strike price) on or before a specified date. (On a derivatives exchange, the exchange itself may act as the counterparty to each contract.)*
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> *BPM6* paragraph 5.88 broadly defines forward-type contracts as follows:
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> ***5.88** A **forward-type contract** (forward) is an unconditional contract by which two counterparties agree to exchange a specified quantity of an underlying item (real or financial) at an agreed-on*

[1] Prepared by Mr. Perry Francis (UK), Mr. McGuire Patrick and Mr. Branimir Gruic (BIS), Ms. Ruth Judson (US), and Mr. Kiff John and Mr. Perez Renato (IMF).

[2] Namely, *Balance of Payments and International Investment Position Manual, sixth edition (BPM6)* and *System of National Accounts, 2008 (2008 SNA)*.

[3] FITT issue F.4 – *Financial derivatives by type* will review the current derivative type and classifications.

contract price (the strike price) on a specified date. Forward-type contracts include futures and swaps (other than as discussed in paragraph 5.91). "Forward-type" contract is used as a term because the term "forward" is often used more narrowly in financial markets (often excluding swaps). "Forward-type" contracts include swaps in this GN.

BPM6 paragraph 5.86 contrasts the two types of contracts as follows:

***5.86 Options can be contrasted with forward-type contracts in that**:*

a) at inception, there is usually no up-front payment for a forward-type contract and the derivative contract begins with zero value, whereas there is usually a premium paid for an option representing a non-zero value for the contract;

b) during the life of the contract, for a forward-type contract, either party can be creditor or debtor, and it may change, whereas for an option, the buyer is always the creditor and the writer is always the debtor; and

c) *at maturity, redemption is unconditional for a forward-type contract, whereas for an option it is determined by the buyer of the option.*

3. *BPM6* then goes on to discuss derivatives products in more detail with paragraph 5.93 focusing on credit derivatives where it clearly defines CDS as being option-type.[4]

***5.93** Credit derivatives are financial derivatives whose primary purpose is to trade credit risk. They are designed for trading in loan and security default risk. In contrast, the financial derivatives described in the previous paragraphs are mainly related to market risk, which pertains to changes in the market prices of securities, commodities, interest, and exchange rates. Credit derivatives take the form of both forward-type (total return swaps) and option-type contracts (credit default swaps).*

4. The points raised by the ABS and the IMF reflect the potential for a CDS contract to switch from an asset position to a liability position and vice versa depending on the credit quality of the reference entity. Whereas an option contract can only have a positive market value (asset) position for the option buyer but never for the option seller. It is the potential to switch from asset position to liability position and vice-versa that brings into question whether CDS have more in common with forward-type derivatives than option-type derivatives and therefore should be reclassified accordingly.

5. The global credit default swap market has changed markedly over the last decade: outstanding amounts have fallen, central clearing has risen, netting has increased and the composition of underlying credit risk exposures has evolved.[5] In terms of materiality, the most recent BIS measure[6] of the gross market value of over-the-counter (OTC) CDS suggests amounts outstanding close to $0.2 trillion.

[4] *2008 SNA* does not explicitly indicate that CDS are options (paragraph 11.123).

[5] See Aldasoro and Ehlers, The credit default swap market: what a difference a decade makes, *BIS Quarterly Review* June 2018.

[6] Table D10.1 – Bank for International Settlements - *OTC derivatives outstanding.*

ISSUES FOR DISCUSSION

6. The authors of this GN on F.5 research topic considered whether CDS were best classified as being more closely aligned to option-type derivatives or whether there is sufficient commonality to consider reclassifying them to being forward-type derivatives.

7. CDS are contracts between two parties that enable investors to buy protection against the risk of a credit event on a specified reference entity.[7] In its most basic terms, a CDS is similar to an insurance contract, providing the buyer with protection against specific risks. It is an instrument that transfers the risk of a credit event from one to another investor. Following a defined credit event,[8] the buyer of the protection receives a payment intended to compensate against the loss on the investment. In return, the protection buyer pays a series of fees (premiums) to the protection seller. The CDS buyer does not necessarily need to have a direct claim on the reference entity in order to buy a CDS—a so-called naked CDS.

8. The periodic premium paid by the protection buyer to the protection seller is called a CDS spread.[9] In recent years standard credit spreads have been established on CDS contracts. Any discrepancy between the standard credit spread and actual required credit spread is accounted for by an upfront premium. If the standard rate is too low (to capture the credit risk), the protection buyer will pay the seller the upfront premium. In contrast, if the standard rate is too high, the protection seller will pay the buyer an upfront premium. Regardless of which party makes the upfront payment, the value of the CDS can change over the lifetime of the contract due to changes in the credit quality of the reference entity.

9. In the case that the reference entity has a decrease in its credit quality, the protection buyer is paying less than is merited at that point. The coverage and cost of protection are the same, but the risk being covered is greater. The value of the CDS to the buyer increases, and the buyer could unwind the position to realize the gain. The CDS seller has experienced a loss in value of the instrument because the seller is receiving an amount to cover a risk that is higher than it was when the contract was initiated. Therefore, if the credit quality of the reference entity decreases, the buyer gains and the seller loses. In contrast, if the credit quality of the reference entity increases, the seller gains and the buyer loses. The market value of the CDS reflects these gains and losses.

10. The protection buyer is considered as the short and the protection seller as the long. The protection buyer benefits when there is a deterioration in the credit quality of the reference entity declines and the CDS spread increases. The protection seller benefits when the credit quality of the reference entity improves and the CDS spread declines.

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[7] The reference entity can be a single named entity, or referencing more than one name as in portfolio or basket credit default swaps or credit default swap indices.

[8] A credit event is a sudden and tangible (negative) change in a borrower's capacity to meet its payment obligations. The three most common credit events, as defined by the International Swaps and Derivatives Association (ISDA), are (i) filing for bankruptcy, (ii) defaulting on payment, and (iii) restructuring debt. Less common credit events are obligation default, obligation acceleration, and repudiation/ moratorium. Source: Investopedia. Additional clarifications on credit events may be obtained from ISDA (e.g., the 2019 Narrowly Tailored Credit Event Supplement to the 2014 ISDA Credit Derivatives Definitions).

[9] Credit spread may be defined as the yield differential between bonds of different quality and similar maturity (e.g., a corporate bond and an equivalent maturity sovereign bond).

11. The following table highlights the different characteristics between forward-type and option-type derivatives along with the characteristics of CDS. There is considerable diversity in forward-type derivatives that makes it challenging to be prescriptive on common characteristics.

Table 1. Characteristics of Forward-Like and Option-Like Derivatives

	Forward-type	Option-type	CDS
Up-front fee/premium	No	Yes	Yes
Regular fees/premiums	No	No	Yes
Potential to switch from asset to liability and vice versa	Yes	No	Yes
Binding obligation at maturity	Yes	No	No
Contingent claim	No	Yes	Yes
Margin payments	Yes	Yes	Yes
Exchange traded or OTC	Both	Both	OTC

12. Table 1 shows that there are no shared characteristics that would align CDS better with either forward-type or option-type derivatives. The shared nature of up-front payments/premiums mirror the premiums paid on options whereas the ability to switch from an asset to a liability position means that CDS have certain traits similar to forward-type derivatives. The question then boils down to whether one set of characteristics should be given greater emphasis when determining the optimal place to classify CDS.

SECTION II: OUTCOMES

13. The outcome of this review comes to three possible recommendations:

i. continue to classify CDS as option-type;

ii. reclassify CDS as forward-type; or

iii. make a recommendation to be discussed by F.4 – *Financial derivatives by type* on supplementary breakdowns of financial derivatives by risk categories where credit derivatives would be separately identified.

RECOMMENDED OPTION

14. The team recommends the first option. It is clear that CDS share characteristics common to both forward-type and option-type derivatives. We are of the view that CDS main features are quite similar (or closer) to put options. Like options, CDS are contingent claims and unilateral contracts. Put options effectively enable the option holder to sell (put) the underlying to the option seller if the underlying performs poorly relative to the exercise price. The option holder is thus compensated for the poor performance of the underlying. CDS act in a similar manner. If a default occurs, a loan or bond has clearly performed badly. The protection buyer is then compensated by the protection seller.

REJECTED OPTION

15. The team rejected the second option. The F.5 co-authoring team acknowledges that CDS have some forward-like characteristics in that they have potential to switch from asset to liability position depending on the perceived credit quality of the reference entity. Weighing-up the characteristics of both type of contracts as shown in Table 1, the team does not believe that there is a strong enough argument to merit moving CDS from option-type to forward-type contract. The authors would nevertheless look to review that recommendation in light of the outcome of the work undertaken for topic F.4, when it becomes available.

16. The majority of the FITT members supported the proposal to maintain the classification of CDS as options during the consultation.

ADDITIONAL RECOMMENDATIONS

17. While the coauthoring team proposes no changes to the existing classification of CDS, it suggests that the next set of international standards should contain a brief explanation or text box highlighting the main characteristics of CDS akin to the information contained in paragraphs 7–10 of this paper. The same standards should also look to provide guidance on the valuation of CDS contracts within both the balance of payments' financial account and international investment position.

18. Additionally, and in the context of the CDS discussion, the team is proposing supplementary breakdowns of financial derivatives by risk categories where credit derivatives would be separately identified to enhance the analytical use of derivatives classification. The proposed supplementary breakdowns are shown in Table 2 and should be considered by the F.4 coauthoring team which is looking at the overall classification of financial derivatives.[10]

19. Although the majority of the FITT and Balance of Payments Task Team (BPTT) members supported the proposal to maintain the classification of CDS as options during the consultation, a few expressed their views that they see more similarities with forward-type contracts. It ramped up the usefulness of the supplementary breakdowns of financial derivatives by risk categories where credit derivatives would be separately identified (CDS could be identified as an "of which" item in credit derivatives).

20. Comments from the FITT and BPTT members also unanimously supported the proposal on the supplementary breakdowns.

[10] Paragraph 5.95 of the *BPM6* explains these supplementary breakdowns; however, Appendix 9 *Standard Components and Selected Other Items* of the *BPM6* does not include the breakdowns. Inclusion of the supplementary breakdowns in *Standard Components and Selected Other Items* in the updated manual would facilitate the compilation of the breakdowns.

Table 2: Proposed Risk Categories

By type (Existing)
Options
Forward-type contracts
By market risk categories (New)
Foreign exchange
Single-currency interest rate
Equity
Commodity
Credit
Other

Questions for Discussion:

1. *Does the Committee agree with the proposal to maintain the classification of CDS as options?*
2. *Does the Committee agree with the proposal to introduce the supplementary breakdown of financial derivatives by risk categories? This proposal would be forwarded to F.4 team which is looking at the overall classification of financial derivatives.*