



Security effect of credit derivatives

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Definition of credit derivative

"Credit derivatives" are defined as guarantee-like financial instruments which are used to transfer the credit risks associated with loans, bonds or other risk activities or market risk positions to what are known as "security providers". Credit derivatives are characteristically based on standardized general agreements (e.g. ISDA general agreement) and subject to ongoing market evaluation and special risk controlling and management. The most popular instruments have basic formats which are defined by supervisory regulations. These include the Credit Default Swap (CDS), the Total Return Swap (TRS) and the Credit Linked Note (CLN). However, care must be taken to ensure that any product described, for example, as a TRS, complies with the supervisory regulations. This means that they need to provide security against specific credit events, such as insolvency or default of payment. The occurrence of a credit event then terminates the credit derivative. Other credit derivatives which are not governed by supervisory law must be examined, for example by drawing analogies, with respect to their security effect. These include, for example, derivatives of credit derivatives such as Credit Spread Options (CSO) or Credit Default Swaptions.

Security effect in SolvV (regulations governing solvency) vs. GroMiKV (large-scale credit regulations)

The security effect of credit derivatives is primarily relevant to the calculation of equity capital requirements in accordance with SolvV and to the calculation of large-scale loans in accordance with GroMiKV which must also be secured with equity capital if the relevant threshold is exceeded. The regulations in these two ordinances have been largely standardized as part of the 2010 reorganization. The following therefore refers exclusively to SolvV.

Trading book

Where credit derivatives are recorded in a trading book, there are a few specific details which need to be complied with. This means that when it comes to the calculation of counter-party credit risk, the volatility rates to be applied for calculating the "add-ons" in line with the market evaluation method are higher than for other categories, e.g. interest or share price related transactions.

In the **general interest change risk**, the reference assets

can be adjusted of TRS against the items held in these securities or comparable risk items, such as loans. This is not an option for CDS as these credit derivatives only consider the interest or premium payment in the general interest change risk. With a CLN, it should be noted that the term of the CLN is relevant as the term, which means that net position formation can only be considered for the corresponding items in the basic security if the term of the CLN tallies with the term of the security.

In the **special interest change risk**, there are more comprehensive opportunities to adjust on the basis of both the basic securities and other credit derivatives. The congruence of the currency and term is a major prerequisite for this.

Banking book

A number of requirements need to be fulfilled to utilize the security effect of a credit derivative in a banking book:

- Minimum requirements for credit risk reduction techniques,
- Allowable security instruments,
 - Allowable guarantees,
 - Warranties,
 - Credit derivatives,
 - Minimum requirements of credit derivatives,
 - Allowable financial securities,
 - Other considerably IRBA securities,
- Eligible guarantors.

Credit derivatives are essentially broken down into guarantees and financial securities. The difference lies in whether the borrower received the possible security on conclusion of the credit derivative or only on occurrence of a credit event. For a CLN, for example, the creditor / security provider pays an amount and receives a lesser amount on occurrence of the credit event. This is a financial security. For a CDS or a TRS, the security provider only pays up on occurrence of the credit event, classifying this as a guarantee.

Item to be secured

For a credit derivative, the reference asset needs to be clearly designated. This generally takes the form of a bond with a registered ISIN. However, the security effect of the

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credit derivative is not restricted to this security, but can, according to supervisory law, also be applied to other liabilities which are not lower priority than the registered bond, which are owed by the same person and associated with the designated bond by means of legally valid mutual default clauses ("cross default") and mutual premature term clauses ("cross acceleration").

The requirements with respect to security compatibility and minimum requirements of a credit derivative depend on the items to be secured. If an item is secured based on KSA or IRB, then the requirements for the credit derivative secured based on this item also depend on those applicable to the relevant approach.

At a group level, only credit derivatives concluded with counter-parties external to the group are included in the calculation.

Tangible implications of security

For KSA, the security effect in the banking book takes the form of substituting the risk weight of the borrower with the risk weight of the security provider. In the IRBA, the failure probabilities are swapped, providing those of the security provider are less than those of the borrower.

However, a credit derivative cannot generally be used to its full value to secure an item. The security effect only relates to the secured element; the unsecured element is considered as before.

Simple method:

If using the "security effect of the simple method", a minimum risk weight of 10 % or 20 % must be included in the KSA providing specific prerequisites are met.

Comprehensive method:

Using the comprehensive method means calculating the value of the security cleansed of fluctuation. This means considering the market value of the security the value fluctuation factor for financial securities, the currency fluctuation factor, the term adjustment factor and the value fluctuation factor. The haircuts can be calculated separately or determined based on the formula set out by the supervisory law: the valuation fluctuation factor represents an adjustment for different liquidity terms.

A KSA item can be secured by a guarantor accredited by

the IRB. In this case, the secured element needs to comply with IRB rules.

At the same time, the supervisory laws consider the probability that both the borrower and the security provider fail at the same time. This is covered by the optional 'double default' regulations. However, this option applies exclusively to IRBA items.

Summary

Taking the security effect of credit derivatives into consideration sometimes makes exacting demands of the data housekeeping of an institute, especially if all the security options are to be exhausted. However, depending on the business structure, this can produce a substantial reduction in equity capital requirements, making it a lucrative undertaking.