X-pand into the Future

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Credit Futures: Introduction on March 27, 2007

Related Eurex Circulars: 266/06

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Content may be most important for:	**Attachments:**
➲ All departments	1. New section of Contract Specifications for Futures Contracts and Options Contracts at Eurex Deutschland and Eurex Zürich 2. Updated sections of Clearing Conditions for Eurex Clearing AG

As published in Eurex circular 266/06, the Eurex Exchanges will introduce credit futures as of **March 27, 2007**.

Further to above circular please find attached the detailed contract specifications for Credit Futures (attachment 1) and the updated sections of the Clearing Conditions for Eurex Clearing AG (attachment 2).

For the detailed description of the daily settlement price determination please see the specifications of the Clearing Conditions for Eurex Clearing AG, Chapter II Part 2, Subpart 2.1.2.

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1.7 Subpart: Contract Specifications for Credit Futures Contracts

The following subpart contains the contract specifications for Futures contracts on credit indices („Credit Index Futures Contracts") and for Futures Contracts on specific reference entities of the Credit Index Futures Contracts (Single Name Recovery Futures) which, in their entirety, are referred to as Credit Futures Contracts.

1.7.1 Subject Matter of Contract of Credit Index Futures Contracts

(1) A Credit Index Futures Contract is a futures contract on a specific credit index.

(2) Available for trading at the Eurex Exchanges are Credit Index Futures Contracts on the (on-the-run) index series respectively valid at introduction of the respective futures contracts for the following indices in the "unfunded" form (CDS form):

- iTraxx® Europe 5-year index series
- iTraxx® Europe Hi Vol 5-year index series
- iTraxx® Europe Crossover 5-year index series.

Either individually or as a whole, the current index series are hereinafter referred to as credit index.

A specific number N of reference entities of the most liquid Credit Default Swaps (CDS) are underlying the credit index. The number of reference entities underlying the credit index may vary during the term of the Credit Index Futures Contract. Credit Index Futures Contracts have a contract value of 100,000 Euro.

(3) In case of an actual credit event (Number 1.7.2), also Credit Index Futures Contracts on new versions of the respective current credit index (credit index which contains at least one reference entity with a weighting of zero) are available until the next final settlement day in addition to the existing Credit Index Futures Contracts pursuant to Number 1.7.1 Paragraph 2. New versions of the underlying credit index consist of N – M reference entities; M refers to the number of reference entities which are weighted with zero in a new version of the underlying credit index.

(4) For the publication, composition, weighting and calculation of the credit index and new versions of credit index, the provisions of the International Index Company Ltd. (index provider) apply, available under www.indexco.com.

(5) The case of a successor event for a reference entity in the credit index generally has no effects on the Credit Index Futures Contract. There is only an adjustment of the reference entities which automatically considers the changes in the underlying credit index. In case the index provider - due to a successor event - creates a new version of the underlying credit index in which the index composition respectively

the weights of the individual reference entities change, the change applies automatically for the underlying and for open positions of the respective current Credit Index Futures Contract. Irrespective of the regulation of aforementioned Paragraphs and Clause 1, the Management Boards of the Eurex Exchanges may – in case of changes of the calculation of the credit index or a change of its composition and weighting which do not seem to reflect the comparability between the concept of the credit index with the concept relevant at the time of admission of the Credit Index Futures Contract - arrange for a close of trading in the existing contracts on the last Exchange day before the changes in the respective credit index become effective. In this case, open positions shall be settled in cash after close of trading. The respective final settlement price (Chapter II. Number 2.8.2 of the Clearing Conditions of Eurex Clearing AG) are relevant. In case the composition and weighting of the credit index changes in particular, the Management Boards of the Eurex Exchanges may furthermore introduce Credit Index Futures Contracts on the basis of Number 1.7.1 Paragraph 3. The regulations of this paragraph also apply in case of the successor for a reference entity in the underlying credit index.

1.7.2 Credit event

(1) For Credit Index Futures Contracts within the meaning of this subpart, a credit event for a specific reference entity shall be deemed to have occurred when the International Swaps and Derivatives Association, Inc. (ISDA) publishes a CDS protocol which announces a final price determination for a specific reference entity in the credit index (actual credit event).

(2) An anticipated credit event occurs if the index provider – basically without occurrence of an actual credit event – issues a new version of the underlying credit index which contains a weighting of zero for at least one reference entity (anticipated credit event).

(3) Credit events within the meaning of Paragraph 1 will only become effective from the trading day following the day of the credit event.

1.7.3 Settlement obligations

In case the final settlement price is above the agreed price after close of trading, the seller of a Credit Index Futures contract is obligated to settle the difference between the agreed price and the higher final settlement price in cash (Chapter II, number 2.8.2 of the Clearing Conditions of Eurex Clearing AG). In case, the final settlement price is below the agreed price after close of trading, the buyer is obligated to settle the difference between the agreed price and the lower final settlement price in cash.

1.7.4 Term

For Credit Index Futures Contracts, terms are available at the Eurex Exchanges until the final settlement day (number 1.7.5 Paragraph 2) of the next half-year's expiry date (March, September). New Credit Index Futures contracts shall – subject to the exceptions ruled in Number 1.7.1 Paragraph 3 and Number 1.7.1 Paragraph 5 Clause 5 - only be introduced in March and September.

1.7.5 Last Trading Day, Final Settlement Day, Close of Trading

(1) The last trading day of Credit Index Futures contracts is the final settlement day.

(2) The final settlement day of Credit Index Futures contracts is always the fifth trading day after the 20th calendar day of a respective half-year expiry date, provided that on this day, the International Index Company publishes the official iTraxx index level (bid and ask spread levels) for the underlying credit index, otherwise the next trading day.

(3) Close of trading on the last trading day is 5:00 p.m. CET.

1.7.6 Price Gradations, Price Components

(1) The price of a Credit Index Futures Contract shall be quoted as a percentage of the contract value, as follows:

- with three decimal places for Credit Index Futures Contracts with the iTraxx Europe 5-year index series as underlying,
- with two decimal places for Credit Index Futures Contracts with the iTraxx Europe Hi Vol 5-year index series and the iTraxx Europe Crossover 5-year index series as underlying.

The price of the Credit Index Futures Contracts shall be determined as a sum of:

- the Basis:

  The basis is determined as the $\sum n_i$, whereby n_i is the weight of the i^{th} reference entitiy in the index and the sum is only determined by the weights of the reference entities which did not experience an actual credit event at the given point in time. As long as no actual credit event has occurred, the $\sum n_i$ corresponds to a basis of 100. In case there is an actual credit event and the respective reference entity has a weight of e.g. 0.8 % in the index, the $\sum n_i$ would correspond to a basis of 99.2. For Futures contracts pursuant to Number 1.7.1 Paragraph 3, the $\sum n_i$ corresponds to a basis smaller than 100

- the Change in the Present Value:

  The change in the present value of the underlying credit index results from the change of the credit spread, relating to the respective basis. The determination of the present value is based on the current credit spread and the deal spread (coupon) of the underlying credit index.

- the Premium:

  The premium is accrued daily or in advance for two or more days, for weekends or holidays. The premium rate is identical to the coupon of the underlying index series and remains unchanged over the entire term of the respective credit futures contract. The premium is calculated daily on the basis of the sum of the weight of those reference entities in the credit index that have not experienced an actual credit event. As long as there is no actual credit event, the basis for the daily premium calculation is 100. For Futures contracts pursuant to Number 1.7.1 Paragraph 3, the basis is smaller than 100 also before occurrence of an actual credit event. On the following day, after occurrence of an actual credit event, the basis for the daily premium calculation is reduced by the

weight of that reference entity in the underlying credit index which has experienced an actual credit event. The accrued premium is calculated by means of the following formula, based on the act/360 interest rate methodology:

B/100 * C/100 * x/360

B= Basis in %. The basis corresponds to 100 until occurrence of an actual credit event; for Futures contracts pursuant to number 1.7.1. Paragraph 3, the basis is smaller than 100 also before occurrence of an actual credit event. On the following day after occurrence of an actual credit event, the Basis shall be reduced by the weight of the reference entity in the underlying credit index which has experienced an actual credit event.

C = coupon in percent

X = number of days since the effective date of the underlying credit index.

- **and, as the case may be, the proportional recovery rate** of the reference entity in the underlying credit index, that has experienced an actual credit event.

  The proportional recovery rate of the reference entity, that has experienced an actual credit event, is determined pursuant to the following formula:

RR * w / 100

W – weighting of the reference entity in the underlying index, which has experienced an actual credit event, in percent

RR = recovery rate in percent

The provisions for determination of the final settlement price in Number 2.8.2 of the Clearing Conditions of Eurex Clearing AG apply with respect to the specification of above-listed price components.

(2) The smallest price change (Tick) is

- 0.005 percent in Credit Index Futures Contracts on the iTraxx Europe 5-year Index series; this corresponds to a price of EUR 5
- 0.01 percent in Credit Index Futures Contracts on the iTraxx Europe Hi Vol 5-year Index series and iTraxx Europe Crossover 5-year Index series; this corresponds to a price of EUR 10.

1.7.7 Settlement, Cash Settlement, Opening of Positions

(1) Settlement day for Credit Index Futures contracts is the Exchange day after the final settlement day.

(2) The settlement of Credit Index Futures contracts is executed via cash settlement between the Clearing Members. The responsible Clearing Member is in charge of the cash settlement to Non-Clearing Members and its own clients; the Non-Clearing Members are in charge of the cash settlement of Non-Clearing-Members to their clients.

(3) If an actual credit event has occurred and if the final price determination pursuant to the ISDA CDS protocol for the reference entity which has experienced such credit event takes place only after the final settlement day of the Credit Index Futures Contracts, Eurex Clearing AG opens on the basis of Number 2.8.2 Paragraph 3 of the Clearing Conditions of Eurex Clearing AG the same number of positions in the Single Name Recovery Futures Contract, introduced on basis of Number 1.7.8, for the respective Exchange participant according to the number of positions existing in the Credit Index Futures Contract on the final settlement day. Furthermore, for this Single Name Recovery Futures Contract, the provisions of Number 1.7.8 apply. The opening of the respective positions is carried out automatically. In case the Exchange participant is no Clearing Member, Number 2.2 Paragraph 2 of the Conditions for Trading at Eurex Deutschland and Eurex Zürich apply accordingly. The Exchange participant has a respective obligation vis-à-vis its clients.

1.7.8 Single Name Recovery Futures Contract

(1) In case an actual credit event occurs and the final price determination according to the ISDA CDS protocol takes place after the final settlement day of the Credit Index Futures Contracts, the reference entity, for which the ISDA has announced a final price determination in the course of a CDS protocol, shall become the underlying of a separate Credit Futures Contract (Single Name Recovery Futures Contract). The Single Name Recovery Futures Contract shall be available for trading on the next trading day after the final settlement day of the Credit Index Futures contracts within the meaning of Number 1.7.5; the information provided by the ISDA when publishing a CDS protocol, being available under www.isda.org, are relevant for the determination of the reference entity. For the contract specifications of this Single Name Recovery Futures Contract, the provisions of this subpart apply.

(2) The contract value in Euro corresponds to the proportional weight of the affected reference entity in the contract value of the Credit Index Futures Contracts pursuant to Number 1.7.1[1]. The Management Boards of the Eurex Exchanges may adjust the contract value, provided that a change of the weighting of the reference entity exists in the credit index.

(3) The price of a Single Name Recovery Futures Contract shall be determined in percentage of the contract value with one decimal place. The smallest price deviation (Tick) is 0.1 %[2]. If the Eurex Exchanges resolve upon the basis of Paragraph 2 Clause 2; the contract value and the value of the smallest price deviation change accordingly.

(4) Numbers 1.7.3 und 1.7.7 Paragraph 1 and 2 apply accordingly.

(5) The last trading day of a Single Name Recovery Futures Contract is the day on which the final price determination is carried out in the course of the ISDA CDS protocol.

(6) The final settlement day of Single Name Recovery Futures Contract is the fifth trading day after the announced day of the final price determination pursuant to the ISDA CDS protocol. The term of the

[1] This would e.g. correspond to a contract value of EUR 800 for reference entities of the iTraxx Europe 5-year index series with a weight of 0.8 %.

[2] This would e.g. correspond to a tick value of e.g. EUR 0.80 with a contract value of EUR 800 within the scope of the iTraxx Europe 5-year index series.

Single Name Recovery Futures Contract corresponds to the calendar month which includes the final settlement day.

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Chapter II
Transactions at Eurex Deutschland and Eurex Zürich (Eurex Exchanges)

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Part 2
Clearing of Futures Contracts

The following Numbers shall rule the Clearing of transactions of Futures contracts which have been named in Paragraph 1 of the Contract Specifications for Futures contracts and Options contracts at Eurex Deutschland and Eurex Zürich.

2.1 General Provisions

The "General Provisions" pursuant to Chapter II Number 2.1 apply for all Futures contracts unless specific or rules deviating from the "General Provisions" pursuant to Chapter II Number 2.2. to 2.5 apply to the respective Futures contracts.

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2.1.2 Daily Settlement

(5) Reference times

Contract	Reference Time (CET)
Money Market Futures	17:15
Credit Futures	17:30
Fixed Income Futures (denominated in Euro)	17:15
CONF-Futures	17:00
SMI®-Futures	17:27
VSMI®-Futures	17:20
All other Index-Futures	17:30

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2.8 Clearing of Credit Futures Contracts

The following numbers shall rule the Clearing of transactions of Credit Futures contracts which have been named in Number 1.7 of the Contract Specifications for Futures contracts and Options contracts at Eurex Deutschland and Eurex Zürich.

2.8.1 Procedures in Payment

All payments shall be made directly between the Clearing Members through their accounts at a branch of the Central Bank of Germany (Deutsche Bundesbank) on the Exchange day following the final settlement day (Number 1.7.5 Paragraph 2 or 1.7.8 Paragraph 6 of the Contract Specifications for Futures contracts and Options contracts at Eurex Deutschland and Eurex Zürich). All Clearing Members must ensure their ability to effect payments on the due date thereof by having sufficient credit balances in their account at a branch of the Central Bank of Germany (Deutsche Bundesbank) or in the account at a branch of the Central Bank of Germany (Deutsche Bundesbank) of the correspondent bank which has been instructed by the Clearing Member to handle the clearing of the contract.

2.8.2 Final Settlement Price

The final settlement price for Credit Futures Contracts is determined by Eurex Clearing AG on the final settlement day (Number 1.7.5 Paragraph 2 or 1.7.8 Paragraph 6 of the Contract Specifications for Futures contracts and Options contracts at Eurex Deutschland and Eurex Zürich) at 5:00 pm CET. The detailed calculation of each component of the final settlement price shall be announced by Eurex Clearing AG via circular and shall be published on the website www.eurexchange.com.

(1) The final settlement price for Credit Index Futures Contracts pursuant to Number 1.7.1 Paragraph 2 of the Contract Specifications for Futures contracts and Options contracts at Eurex Deutschland and Eurex Zürich shall be determined in percent with four decimal places as the total sum of:

- the Basis:

  The basis is determined as the $\sum n_i$ whereby n_i is the weight of the i^{th} reference entity in the index and the sum is only determined by the weights of the reference entities which did not experience an actual credit event at the given point in time. As long as no actual credit event has occurred, the $\sum n_i$ corresponds to a basis of 100. In case there is an actual credit event and the respective reference entity has a weight of 0.8 % in the index, the $\sum n_i$ would correspond to a basis of 99.2.

- the Change in the Present Value:

  The change in the present value of the underlying credit index results from the change of the credit spread, relating to the respective basis. The determination of the present value change on the final settlement day is based on the official iTraxx® Index Level for the underlying index series as the credit spread which the index provider publishes on 5:00 p.m. CET, and the deal

spread (coupon) of the underlying credit index. The change in the present value shall be determined by using the mid spread as mid value between the bid and ask spread of the official iTraxx® Index Levels. The official iTraxx® Index Levels are published on www.indexco.com.

- The Premium:

The premium is accrued daily or, in advance for two or more days for weekends or holidays. The premium rate is identical to the coupon of the underlying credit index and remains unchanged over the entire term of the respective credit futures contract. The premium is calculated daily on the basis of the sum of the weights of the reference entities in the credit index that have not experienced an actual credit event. As long as there is no actual credit event, the basis for the daily premium calculation is 100. On the following day, after the occurrence of an actual credit event, the basis for the daily premium calculation is reduced by the weight of the reference entity in the underlying credit index which has experienced an actual credit event. The accrued premium is calculated by means of the following formula, based on the act/360 interest rate methodology:

$$B/100 * C/100 * x/360$$

B= Basis in %. The basis is 100 until the occurrence of an actual credit event; on the following day after the occurrence of an actual credit event, the basis shall be reduced by the weight of the reference entity in the underlying credit index which has experienced an actual credit event.

C = coupon in percent

X = number of days since the effective date of the underlying credit index.

(2) Provided that the final price determination announced by the International Swaps and Derivatives Association, Inc. (ISDA) in the course of a CDS protocol is prior to the end of the term of the credit futures contract, the final settlement price for credit index futures contracts in case of occurrence of an actual credit event shall be calculated as the sum of:

- The basis, the change in the present value, the premium, as defined in Paragraph 1 and
- The proportional recovery rate of the reference entity in the underlying credit index for which an actual credit event has occurred.

The proportional recovery rate of the reference entity that has experienced an actual credit event is determined by means of the following formula:

$$RR * w / 100$$

W = weighting of the reference entity in the underlying credit index which has suffered an actual credit event, in percent

RR = Recovery Rate in percent

The recovery rate is equivalent to the final price which is determined within the scope of the ISDA CDS protocol comprising the current reference obligation assigned to the respective reference entity in the underlying index documentation. In case the reference obligation is not part of the final price determination announced by the ISDA, the final price as determined for obligations of the affected reference entity corresponding to the same seniority[1] as the reference obligation is used.

(3) If a final price determination already announced by the ISDA is only concluded after the end of the term of a Credit Index Futures Contract, the final settlement price for the Credit Index Futures Contract shall be determined pursuant to the provisions of Paragraph 1.

In accordance with the number of positions of the Credit Index Futures contract on the final settlement day, the respective number of positions in the Single Name Recovery Futures contract shall additionally be opened pursuant to number 1.7.8 of the Contract Specifications for Futures contracts and Options contracts at Eurex Deutschland and Eurex Zürich with the underlying corresponding to the reference entity affected by the actual credit event. For these Single Name Recovery Futures contracts, the final price within the scope of the ISDA CDS protocol comprising the reference obligation assigned to the respective reference entity in the underlying index documentation is used. In case this reference obligation is not subject of a final price determination announced by the ISDA, the final price determined for obligations of the affected reference entity corresponding to the same seniority as the reference obligation is used. For the final price determination within the scope of the ISDA CDS protocol, the provisions and publication of the ISDA in the course of the announcement of a CDS protocol apply, available under www.isda.org.

(4) The final settlement price for Credit Index Futures contracts pursuant to Number 1.7.1 Paragraph 3 of the Contract Specifications for Futures Contracts and Options Contracts at Eurex Deutschland and Eurex Zürich shall be determined according to the provisions of Paragraph 1, under the condition that

- the basis as $\sum n_i$ is – even without occurrence of an actual credit event – smaller than 100, and
- the premium is calculated retroactively since the effective date of the Credit Index being the underlying of the Credit Index Futures Contract pursuant to Number 1.7.1 Paragraph 2 of the Contract Specifications for Futures Contracts and Options Contracts at Eurex Deutschland and Eurex Zürich; the premium is calculated referring to the basis pursuant to Paragraph 4, first bullet point.

(5) The final settlement price for Credit Index Futures Contracts pursuant to Number 1.7.1 of the Contract Specifications for Futures Contracts and Options Contracts at Eurex Deutschland and Eurex

[1] e.g. the seniority refers to the priority of obligations (e.g. senior debt, sub-ordinated debt etc.)

Zürich is determined in percent with four decimal places and is commercially rounded to the next possible interval of 0.0005; 0.001 or multiples thereof.

(6) In case there is more than one actual credit event during a term of a Credit Index Futures Contract, the provisions of Paragraph 1 to 4 shall be used according to the chronology of the different credit events.

(7) If there are extraordinary circumstances, in particular if – due to technical problems – trading is interrupted or several credit events occur within a very short period of time or if a final price determination in one of the underlyings is not possible due to other reasons or the final price determination in the course of the ISDA CDS protocol does not take place or is not carried out according to the provisions of aforementioned paragraphs, Eurex Clearing AG may determine the final settlement price by using another method, provided it has notified the Clearing Members thereof in advance. In particular, the final settlement price for the Single Name Recovery Futures Contract may be determined in the course of an auction determined by Eurex Clearing AG, such auction taking place on Eurex Deutschland and Eurex Zürich on the final settlement day. The execution of the auction and the fact, that a specific auction is used in order to determine the final settlement price, shall be announced in due time.

2.8.3 Performance, Delivery

Open positions from the last trading day of a Credit Futures Contract shall be balanced on the final settlement day by means of a net payment credited to or debited from the internal cash clearing account of the Clearing Member. Such payment shall equal the difference between the final settlement price of such contract and such contract's daily settlement price on the Exchange day preceding the last trading day as far as these positions have already existed the previous day. For positions opened on the last trading day, the booking amount shall equal the difference between the final settlement price and the trading price.

2.8.4 Default

Defaults or technical defaults in payment shall be subject to the provisions of Chapter I Number 7.1 or Number 7.2 respectively.

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