X-pand into the Future

# e u r e x *circular 003/03*

Date: Frankfurt January 10, 2003
Recipients: All Eurex members and vendors
Authorized by: Peter Reitz

⚠ **Action Required** ⚠ **High Priority**

## Introduction of Futures on the Average of Effective Interest Rates for Overnight Inter-bank Deposits, EONIA (One Month EONIA Futures)

**Contact:** Mehtap Dinc (Product Development): Tel. +49-69-21 01-72 84 E-Mail: Mehtap.Dinc@eurexchange.com
Nadja Urban (Product Development): Tel. +49-69-21 01-51 05 E-Mail: Nadja.Urban@eurexchange.com

**Content may be most important for:**

➲ All Departments

**Attachments:**

1. Contract Specifications – One Month EONIA Futures
2. Final Settlement Price Calculation
3. Extension to Clearing Conditions (German language)
4. Modifications to Price List

**Summary:**

The Management Boards of Eurex Deutschland and Eurex Zürich have made the decision to introduce Futures on the average of effective interest rates for overnight deposits in inter-bank transactions, EONIA (One Month EONIA Futures).

The introduction will take place on January 27, 2003 subject to the approval of the Exchange Council of Eurex Deutschland and the Administrative Council of Eurex Zürich.

This Circular includes more details under the following headings:

1. **Introduction Date**
2. **Contract Specification**
3. **Trading Hours**
4. **Transaction Fees**
5. **Simulation**
6. **Designated Market Making**
7. **Clearing Conditions and Price List**
8. **Additional Information**

# Introduction of Futures on the Average Effective Interest Rate for Overnight Inter-bank Lending in the Euro Area - EONIA (One month EONIA Futures)

The European Central Bank's EONIA (**E**uropean **O**ver**N**ight **I**ndex **A**verage) reference rate is calculated as the average rate of overnight inter-bank lending transactions undertaken by a panel of declaring banks in the euro area and is a benchmark rate in the euro money market.

The EONIA reference rate is calculated by the European Central Bank and made available for publication.

## 1. Introduction Date

In their meeting on December 4, 2002, the Management Boards of Eurex Deutschland and Eurex Zürich made the decision to introduce Futures on the average of effective interest rates for overnight deposits in inter-bank transactions, EONIA (One Month EONIA Futures).

The introduction will take place on January 27, 2003 subject to the approval of the Exchange Council of Eurex Deutschland and the Administrative Council of Eurex Zürich.

## 2. Contract Specifications

A One Month EONIA Future is a futures contract on the average of all effective interest rates defined by the European Central Bank for overnight lending in euro in the inter-bank market during the period of a calendar month.

From the introduction date, expirations for the calendar months February 2003 until January 2004 will be available. The maximum term of a One Month EONIA Future is therefore 12 months. The minimum price step will be 0.005 percentage points. Full information on the product can be found in the Contract Specification (Attachment 1) and the example calculation of the final settlement price (Attachment 2).

## 3. Trading Hours

Trading hours (CET) for One Month EONIA Futures are as follows:

| Pre-Trading | Trading | Post-Trading |
|---|---|---|
| 07:30 – 08:00 | 08:00 – 19:00 | 19:00 – 20:00 |

## 4. Transaction Fees

Transaction fees for matching of One Month EONIA Futures will be EUR 0.25 per contract. To ensure sufficient liquidity in the early trading months, a fee holiday will apply until the end of June, 2003.

## 5. Simulation

The One Month EONIA Future is now available in the permanent simulation environment for test purposes.

| Product | Code | ISIN |
|---|---|---|
| **One Month EONIA Future** | FEO1 | DE0007201535 |

## 6. Designated Market Making

Eurex is offering interested members the opportunity to participate in designated market making for One Month EONIA Futures. As a Designated Market Maker, a Eurex Member undertakes to respond to quote requests by providing bid and ask prices (quotes) subject to a maximum spread, for a minimum number of contracts, within a certain time period and for a defined duration.

To define the details, interested participants are requested to contact directly Ms. Mehtap Dinc, Tel. +49-69-21 01-72 84, or Ms. Nadja Urban, Tel. +49-69 21 01-51 05.

Eurex Deutschland
D-60485 Frankfurt am Main
www.eurexchange.com

Functional Member Readiness
Tel. +49-69-2101-1700
Fax +49-69-2101-1701

Management Board:
Rudolf Ferscha (CEO), Jürg Spillmann,
Daniel Gisler, Thomas Lenz,
Peter Reitz, Michael Widmer

**7. Clearing Conditions and Price List**

Attachments 3 and 4 contain the modified section of the Clearing Conditions of Eurex Clearing AG and the changes to the Price List respectively. The Clearing Conditions are currently available in the German language only; the English version will be published as soon as possible.

**8. Additional Information**

Additional information related to trading the One Month EONIA Future at Eurex (e.g. amendments to the Trading Conditions, Clearing Conditions, Price List, operational parameters, Designated Market Making Conditions, product code, vendor codes) will be published in a further Circular in good time prior to introduction of the product.

Frankfurt, January 10, 2003

Eurex Deutschland
D-60485 Frankfurt am Main
www.eurexchange.com

Functional Member Readiness
Tel. +49-69-2101-1700
Fax +49-69-2101-1701

Management Board:
Rudolf Ferscha (CEO), Jürg Spillmann,
Daniel Gisler, Thomas Lenz,
Peter Reitz, Michael Widmer

## Contract Specifications for:

# One Month EONIA Future

**Contract Standard**
Compounded average rate of the effective overnight reference rate for the euro (EONIA – Euro OverNight Index Average) - determined by the European Central Bank - for a period of one calendar month

**Contract Value**
EUR 3,000,000

**Price Quotation**
In percent, with three decimal places, expressed as 100 minus the traded rate of interest

**Minimum Price Change**
0.005 percent, equivalent to a value of EUR 12.50

**Contract Months**
The current calendar month and the eleven subsequent calendar months

**Settlement**
Cash settlement, payable on the first exchange trading day following the final settlement day

**Last Trading Day – Final Settlement Day**
Last exchange trading day of the respective contract month, provided that on that day the daily effective overnight reference rate for the euro (EONIA) is determined by the European Central Bank; otherwise the preceding exchange trading day. Trading in the maturing contract month ceases at 7:00 p.m. CET.

**Daily Settlement Price**
The volume-weighted average price of the last five trades of the day, provided that these are not older than 15 minutes; or, if more than five trades have occurred during the final minute of trading, the volume-weighted average price of all trades that occurred during that period. If such a price cannot be determined, or if the price so determined does not reasonably reflect the prevailing market conditions, Eurex will establish the official settlement price.

**Final Settlement Price**

Eurex establishes the Final Settlement Price after 7 p.m. on the last trading day on the basis of the compounded average of the effective overnight reference rate for the euro (EONIA) as determined by the European Central Bank on a daily basis for the period of the contract. The calculation includes the rates from the first calendar day until the last calendar day of the respective contract month. For Saturdays, Sundays and bank holidays on which the European Central Bank does not calculate an EONIA rate, the rate from the previous day on which an EONIA rate was determined by the European Central Bank will be taken as a basis. The following formula will be used. :

$$r = \frac{360 \times \left( \prod_{i=te}^{tp} (1 + ri \times di/360) - 1 \right)}{n}$$

| | |
|---|---|
| 1 | Euro market convention |
| r | Compounded average of the effective overnight reference rate for the Euro (EONIA) |
| $t_e$ | First calendar day of contract month |
| $t_p$ | Last day in the One Month EONIA Future Front Month on which an EONIA rate is determined by the European Central Bank |
| $r_i$ | EONIA Rate as determined by the European Central Bank; as a percentage divided by 100 |
| $d_i$ | Number of calendar days in the contract month that the value ri is valid (normally one day; two, three or more days on Saturdays, Sundays and bank holidays) |
| n | Period of One Month EONIA Future Front Month in actual calendar days |

To fix the final settlement price the compounded EONIA average rate will be arithmetically rounded to the nearest price interval (0.005, 0.01 or a multiple thereof) and then subtracted from 100.

**Trading Hours**

8:00 a.m. until 7:00 p.m. CET

**Matching of Trades (Pro Rata Matching)**

Orders and quotes in One Month EONIA Futures are matched according to the pro rata matching principle.

# Final Settlement Price Calculation

## Determination of Final Settlement Price for One Month EONIA Futures – Fictitious example: Contract Month November 2002:

**Contract Month**: Nov02
**Last Trading Day/Final Settlement Day:** November 29, 2002
**Underlying Period Contract Month:** November 1, 2002 until November 30, 2002
**First Accrual Day:** November 1, 2002
**Last Accrual Day:** November 30, 2002

**EONIA Rates as determined by the European Central Bank:**

| Day | Date | Official EONIA Rate in % | Day | Date | Official EONIA Rate in % |
|---|---|---|---|---|---|
| Friday | 11/1 | 3.30 | Wednesday | 11/20 | 3.29 |
| Monday | 11/4 | 3.29 | Thursday | 11/21 | 3.30 |
| Tuesday | 11/5 | 3.09 | Friday | 11/22 | 3.49 |
| Wednesday | 11/6 | 3.28 | Monday | 11/25 | 3.30 |
| Thursday | 11/7 | 3.25 | Tuesday | 11/26 | 3.30 |
| Friday | 11/8 | 3.29 | Wednesday | 11/27 | 3.30 |
| Monday | 11/11 | 3.29 | Thursday | 11/28 | 3.30 |
| Tuesday | 11/12 | 3.29 | Friday | 11/29 | 3.38 |
| Wednesday | 11/13 | 3.29 | Monday | 12/2 | 3.36 |
| Thursday | 11/14 | 3.29 | Tuesday | 12/3 | 3.32 |
| Friday | 11/15 | 3.29 | Wednesday | 12/4 | 3.01 |
| Monday | 11/18 | 3.29 | Thursday | 12/5 | 2.94 |
| Tuesday | 11/19 | 3.29 | Friday | 12/6 | 2.90 |

## Formula for calculation of the final settlement price:

$$r = \frac{360 \times \left( \prod_{i=te}^{tp} (1 + ri \times di/360) - 1 \right)}{n}$$

- 1 Euro market convention
- r Compounded average of the effective overnight reference rate for the Euro (EONIA)
- $t_e$ First calendar day of contract month
- $t_p$ Last day in the One Month EONIA Future Front Month on which an EONIA rate is determined by the European Central Bank
- $r_i$ EONIA Rate as determined by the European Central Bank; as a percentage divided by 100
- $d_i$ Number of calendar days in the contract month that the value ri is valid (normally one day; two, three or more days on Saturdays, Sundays and bank holidays)
- n Period of One Month EONIA Future Front Month in actual calendar days

The final settlement price is determined as:

$$r = \frac{360 \times \left[\left(\begin{array}{l}(1+0.033\times 3/360)\times(1+0.0329/360)\times(1+0.0309/360)\times(1+0.0328/360)\times \\ (1+0.0325/360)\times(1+0.0329\times 3/360)\times(1+0.0329/360)\times(1+0.0329/360)\times \\ (1+0.0329/360)\times(1+0.0329/360)\times(1+0.0329\times 3/360)\times(1+0.0329/360)\times \\ (1+0.0329/360)\times(1+0.0329/360)\times(1+0.033/360)\times(1+0.0349\times 3/360)\times \\ (1+0.033/360)\times(1+0.033/360)\times(1+0.033/360)\times(1+0.033/360)\times \\ (1+0.0338\times 2/360)-1\end{array}\right)\right]}{30} = 3.314616\%$$

Final Settlement Price Nov 02: 96.685 (100 minus 3.315)

For the determination of the final settlement price, the last official EONIA reference rate, determined on November 29, 2002 is taken into consideration for 2 days only (rates up to and including Saturday, November 30, 2002).

The first EONIA reference rate valid for the Dec 02 contract is the rate of December 1, 2002 (= Sunday). But, as no EONIA reference rate is determined by the European Central Bank on Sundays, the rate from the previous business day applies and will be considered for one day; i.e. 3.38% determined on November 29, 2002 is the first EONIA reference rate for the Dec 02 contract.

# I. Kapitel: Clearing der Geschäfte an der Eurex Deutschland und der Eurex Zürich

## 2 Abschnitt: Abwicklung der Geschäfte an der Eurex Deutschland und der Eurex Zürich

## 2.1 Teilabschnitt: Abwicklung von Future-Kontrakten

### 2.1.17 Unterabschnitt: Abwicklung von Future-Kontrakten auf den Monatsdurchschnitt der effektiven Zinssätze für Tagesgeld im Interbankengeschäft, EONIA (Einmonats-EONIA-Future)

#### 2.1.17.1 Allgemeine Verpflichtungen

(1) Die Eurex Clearing AG ist Vertragspartner für alle Zahlungen bei Erfüllung von Einmonats-EONIA-Future-Kontrakten.

(2) Clearing-Mitglieder haben ihre Zahlungsverpflichtungen nach Weisung der Eurex Clearing AG zu erfüllen.

(3) Für das Verfahren bei Zahlungen nach Absatz 1 gilt Folgendes: Alle Zahlungen erfolgen zwischen den Clearing-Mitgliedern über eine Filiale der Deutschen Bundesbank an dem dem Schlussabrechnungstag folgenden Börsentag. Alle Clearing-Mitglieder haben ihre Zahlungsfähigkeit durch entsprechende Guthaben auf ihrem Konto bei einer Filiale der Deutschen Bundesbank beziehungsweise auf dem Konto der Filiale der Deutschen Bundesbank der von dem Clearing-Mitglied zwecks Abwicklung des Kontraktes einbezogenen Korrespondenzbank sicherzustellen.

#### 2.1.17.2 Tägliche Abrechnung

(1) Für jeden Kontrakt werden Gewinne und Verluste aus offenen Positionen an dem betreffenden Börsentag im Anschluss an die Post-Trading-Periode ermittelt und dem internen Geldverrechnungskonto gutgeschrieben oder belastet. Für offene Positionen des Börsenvortages berechnet sich der Buchungsbetrag aus der Differenz zwischen den täglichen Abrechnungspreisen des Kontraktes vom Börsentag und Börsenvortag. Für Geschäfte am Börsentag berechnet sich der Buchungsbetrag aus der Differenz zwischen dem Preis des Geschäftes und dem täglichen Abrechnungspreis des Börsentages.

(2) Der tägliche Abrechnungspreis wird gebildet aus dem volumengewichteten Durchschnitt der Preise der letzten fünf zustande gekommenen Geschäfte, sofern sie nicht älter als 15 Minuten sind oder dem volumengewichteten Durchschnitt der Preise aller während der letzten Handelsminute zustande gekommenen Geschäfte, sofern in diesem Zeitraum mehr als fünf Geschäfte zustande gekommen sind. Ist eine Preisermittlung nach der vorstehenden Regelung nicht möglich oder entspricht der so ermittelte Preis nicht den tatsächlichen Marktverhältnissen, legt die Eurex Clearing AG den Abrechnungspreis fest.

(3) Absatz 1 gilt für das Rechtsverhältnis zwischen General-Clearing-Mitgliedern oder Direkt-Clearing-Mitgliedern und den ihnen angeschlossenen Nicht-Clearing-Mitgliedern entsprechend.

**2.1.17.3 Sicherheitsleistung**

(1) Die Grundlagen für die Sicherheitsleistung ergeben sich aus den Nummern 1.3.1 bis 1.3.5. Darüber hinaus gilt Folgendes:

(2) Bei Einmonats-EONIA-Future-Kontrakten sind für kompensierbare Positionen Sicherheiten für das Risiko nicht vollständig gleichgerichteter Preisentwicklungen verschiedener Erfüllungsmonate zu leisten (Spread Margin). Bei einer Kompensation wird eine Netto-Long-Position in einem Kontrakt eines Erfüllungsmonats so weit wie möglich gegen eine Netto-Short-Position in einem Kontrakt eines anderen Erfüllungsmonats verrechnet.

(3) Neben der Sicherheitsleistung gemäß Absatz 2 wird eine weitere Sicherheitsleistung (Additional Margin) ermittelt, die die Änderung der Glattstellungskosten der nicht nach Absatz 2 kompensierbaren Future-Positionen bei Eintritt der von der Eurex Clearing AG ermittelten ungünstigsten Preisentwicklung bis zur nächsten Sicherheitenberechnung abdeckt.

**2.1.17.4 Erfüllung**

(1) Offene Positionen vom letzten Handelstag eines Kontraktes werden durch einen Differenzbetrag ausgeglichen, der dem internen Geldverrechnungskonto des Clearing-Mitgliedes gutgeschrieben oder belastet wird. Der Buchungsbetrag berechnet sich am Schlussabrechnungstag anhand der Differenz zwischen dem Schlussabrechnungspreis eines Kontraktes und dessen täglichen Abrechnungspreis (Nummer 2.1.17.2) vom Börsenvortag, sofern die Positionen bereits am Vortag bestanden. Für am letzten Handelstag eröffnete Positionen berechnet sich der Buchungsbetrag aus der Differenz zwischen dem Schlussabrechnungspreis und dem Handelspreis.

Der Barausgleich gemäß Satz 1 erfolgt sodann am Erfüllungstag; dies ist der dem Schlussabrechnungstag folgende Börsentag.

(2) Der Schlussabrechnungspreis wird von der Eurex Clearing AG am Schlussabrechnungstag eines Kontraktes auf Grundlage des Monatsdurchschnitts der von der Europäischen Zentralbank für den dem Future Kontrakt zugrunde liegenden Kalendermonat ermittelten Referenz-Zinssätze für Tagesgeld in Euro (EONIA) unter Berücksichtigung des Zinseszinseffektes festgelegt. Die Regelung zur Feststellung des Schlussabrechnungspreises gemäß Nummer 2.1.17.1 der Handelsbedingungen gilt entsprechend.

**2.1.17.5 Verzug bei Zahlung**

Für Verzug beziehungsweise technischen Verzug bei Zahlung gelten die Regelungen gemäß Nummer 1.7.1 Abs. 4 beziehungsweise Nummer 1.7.2 Abs. 5.

[…]

## 2.1 Matching / Recording of Exchange Transactions (Trade)

| Contracts: | Fee per Contract: | Fee per Contract for Market Makers: |
|---|---|---|

[…]

| | | |
|---|---|---|
| **Money Market Products** | | |
| One-Month EURIBOR Futures<br>Three-Month EURIBOR Futures | EUR 0.25 | <n/a> |
| Options on Three-Month EURIBOR Futures | EUR 0.25 | EUR 0.05 |
| **One Month EONIA Futures** | **EUR 0.25 *** | **<n/a>** |

[…]

## 2.2 Position Closing Adjustments

Position Closing Adjustments, if these do not take place between 1.30 p.m. on the day of the trade and 1.30 p.m. on the following trading day:

| Contract: | Fee per Contract: |
|---|---|

[…]

| | |
|---|---|
| **Money Market Products** | |
| One-Month EURIBOR Futures<br>Three-Month EURIBOR Futures<br>Options on Three-Month EURIBOR Futures<br>**One Month EONIA Futures** | EUR 0.50 * |

**[…]**

## 2.3 Cash Settlement

| Contract: | Fee per Contract: |
|---|---|

[…]

| | |
|---|---|
| **Money Market Products** | |
| One-Month EURIBOR Futures<br>Three-Month EURIBOR Futures<br>**One Month EONIA Futures** | EUR 0.25 * |

[…]

* For One Month EONIA Futures no transaction fees will be levied before the End of June 2003.