e u r e x *b o n d s circular 54/08*

Date: Frankfurt, July 8, 2008
Recipients: All Members of Eurex Bonds
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Action required

New Instruments: Information No. 47

Contact: Hotline Eurex Bonds, tel. +49-69-211-1 12 22.

Content may be most important for:	**Attachments:**
Ü Front Office / Trading Ü IT/System Administration	1. Instrument setup information for July 14, 2008 2. Break-even product description

With circular 47/08 we already informed you about the coming production start of German break-even instruments at the beginning of the third quarter 2008. We are pleased to announce today the official start of trading. This will be Monday, **July 14, 2008**.

Please note the attached instrument setup information for the Eurex Bonds trading platform.

With the introduction of Xetra Release 9.0, Market-Making licences no longer have to be assigned to the trader groups. New instruments are automatically assigned to the respective instrument group and released for quotation.

New instruments will usually be available for administration one day in advance of the first trading day from about 14:00 CET. The updated instrument list is available on the Eurex Bonds website under the link:

www.eurex-bonds.com > Trading > Instruments

Eurex Bonds announces that for reporting purposes the spreads can be doubled for all segments compared to the current definition (see market-making brochure).

Please do not hesitate to call Eurex Bonds at tel. +49-69-211-1 12 22 for any questions you may have.

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Attachment 1 to Eurex Bonds circular 54/08

First Trade Date	Instrument Group	ISIN	Short Name / Wkn	Name	Min Quote Quantity in mio €	Max Price Spread	Tick size	Underlying inflation linked bond	Underlying nominal bond
14-Jul-08	ILBE	DE000A0V8L61	A0V8L6	Break Even BUND I/L APR/16	5.00	0.1	0.001	DE0001030500	DE0001135291
14-Jul-08	ILBE	DE000A0V8L79	A0V8L7	Break Even BUND I/L APR/13	5.00	0.1	0.001	DE0001030518	DE0001135218

Break-Even

Launch Date July 14, 2008

A Product Description

Instrument Details

- Break Even is the gap in yields between nominal and inflation linked bonds of similar maturity and credit quality
- The Break Even instrument represents two bonds, a nominal bond (a regular government bond) and a real bond (inflation linked bond), wherein you buy/sell or sell/buy both bonds in one trade
- The Break Even instrument will be traded in the Eurex Bonds system, but only the underlying legs will be settled
- The hedge ratio is calculated automatically and is used to determine the two settlement amounts of the underlying legs
- A Break Even instrument can easily distinguished by the instrument group = "ILBE" and the 'Xetra instrument type' = "BAS"
- Trade confirmations
  - Separate trade confirmations for each single leg:
    - price, size, market value
    - Break Even order-size/-price
  - One trade confirmation for the Break Even instrument without CCP handling

Break Even Instrument Definition

- Calculation of Break Even is calculated by the following formula:
  Break Even = yield (nominal bond) – yield (real bond)

- Buy a Break Even instrument = buy a real bond and sell a nominal bond
  Sell a Break Even instrument = sell a real bond and buy a nominal bond

- Bid < Ask, therefore
  bid-quotes are in descending order and
  ask-quotes are in ascending order within the order book

Break Even Instruments in Eurex Bonds Simulation

The following Break Even instruments are currently listed in Eurex Bonds Simulation:

Instrument ISIN	Name	Underlying inflation linked bond	Name	Underlying nominal bond	Name
DE000A0V8L79	Break Even BUND APR 13	DE0001030518	Bundlink 15.04.2013 2,25	DE0001135218	Bundesanleihe 04.01.2013 4,5%
DE000A0V8L61	Break Even BUND APR 16	DE0001030500	Bundlink 15.04.2016 1,5%	DE0001135291	Bundesanleihe 04.01.2016 3,5%

In Eurex Bonds Simulation, the Break Even instruments are listed in the instrument group= “BEIL” and instrument type= “BOND”

Instrument Setup in Eurex Bonds Production

The Break Even Instruments have the following production set up parameters

Instrument ISIN	Name	Underlying inflation linked bond	Name	Underlying nominal bond	Name
DE000A0V8L79	Break Even BUND APR 13	DE0001030518	Bundlink 15.04.2013 2,25	DE0001135218	Bundesanleihe 04.01.2013 4,5%
DE000A0V8L61	Break Even BUND APR 16	DE0001030500	Bundlink 15.04.2016 1,5%	DE0001135291	Bundesanleihe 04.01.2016 3,5%

Instrument ISIN	Min Quote Quantity	Minimum Tradable Unit	Quote Unit	Max Quote Spread	Instrument Group	Instrument subtype	Trade Time
DE000A0V8L79	€ 5 mio	€ 5 mio	Yield spread	0,1	ILBE	BAS	08:30 – 17:30
DE000A0V8L61	€ 5 mio	€ 5 mio	Yield spread	0,1	ILBE	BAS	08:30 – 17:30

Hedge Ratio Calculation Path

§ **Given Input within a quote/trade (example):**

Break Even	2.279%
Linker Volume traded	100 mio.
Index ratio per settlement day	1,03328
Clean-Price_{nom}	102,38

§ **Calculation (Yield- and Price Calculation with ICMA-Method)**

1. Clean-Price_{nom} **à** YIELD_{nom}	YIELD_{nom}	3,9308%
2. $\text{Clean-Price}_{nom} + \text{AccrInt}_{nom} = \text{Dirty-Price}_{nom}$	Dirty-Price_{nom}	103,744
3. Dirty-Price_{nom} **à** Duration_{nom} **à** ModDuration_{nom}	ModDuration_{nom}	4,128
4. $\text{Dirty-Price}_{nom} /10000 \times \text{ModDuration}_{nom} = \text{PVO1}_{nom}$	PVO1_{nom}	0,04282
5. $\text{YIELD}_{nom} - \text{BE} = \text{YIELD}_{linker}$	YIELD_{linker}	1,6518%
6. YIELD linker **à** $\text{Clean-Price}_{linker}$	$\text{Clean-Price}_{linker}$	102,83
7. $(\text{Clean-Price}_{linker} + \text{AccrInt}) \times \text{Index ratio} = \text{Dirty-Price}_{linker}$	$\text{Dirty-Price}_{linker}$	106,31
8. $\text{Dirty-Price}_{linker}$ **à** Duration_{linker} **à** $\text{ModDuration}_{linker}$	$\text{ModDuration}_{linker}$	4,6862
9. $\text{Dirty-Price}_{linker} /10000 \times \text{ModDuration}_{linker} = \text{PVO1}_{linker}$	PVO1_{linker}	0,04982
10. $\text{Hedge-Ratio} = \text{PVO1}_{linker} / \text{PVO1}_{nom}$	Hedge-Ratio	1,16337
11. $\text{Volume}_{nom} = \text{Volume}_{linker} \times \text{Hedge-Ratio}$	Volume_{nom}	116,337 mio *

* This will be rounded to 1 million = 116 million.

Price Priority

The following price priority is implemented to ensure the calculation of the Break Even underlying legs

Rank	Price	Price Source
1	Quote Nominal Bond	Eurex Bonds
2	Quote Real Bond	Eurex Bonds
3	Today's Price Nominal Bond	Eurex Bonds
4	Today's Price Real Bond	Eurex Bonds
5	Corresponding Future price *	Eurex

* Calculation see next slide

Calculation of Nominal Bond Price via the Eurex Future (see Price Priority 5-7)

- In case of an unavailability of quotes and prices for the nominal and the real bond, the price of the nominal bond is calculated via the corresponding Eurex Future Price:

  $\text{Clean-Price}_{nom} = \text{Price}_{Basis} + \text{Price}_{Future} \times \text{Conversion Factor}$

- If there is no Basis-Price or Basis-Quote available, the Clean-Price of the Nominal Bond is calculated without the Basis-Price

  $\text{Clean-Price}_{nom} = \text{Price}_{Future} \times \text{Conversion Factor}$

- The Conversion Factor is calculated identical to the Eurex with following Method:

$$\frac{1}{(1+not/100)^f}\times\left[\frac{c}{100}\times\frac{\delta_l}{act2}+\frac{c}{not}\times\left((1+not/100)-\frac{1}{(1+not/100)^n}\right)+\frac{1}{(1+not/100)^n}\right]-\frac{c}{100}\times\left(\frac{\delta_l}{act2}-\frac{\delta_s}{act1}\right)$$

Definition:

DD	Delivery date	act1	NCD-NCD1y, where $\delta_s < 0$
NCD	Next coupon date after delivery date		NCD1y-NCD2y, where $\delta_s \geq 0$
NCD1y	1 year before the NCD	δ_l	NCD1y-LCD
NCD2y	2 years before the NCD	act2	NCD-NCD1y, where $\delta_l < 0$
LCD	Last coupon date before the delivery date. Start interest period if last coupon date not available		NCD1y-NCD2y, where $\delta_l \geq 0$
δ_s	NCD1y-DD	f	$1+\delta_s / act1$
n	Integer years from the NCD until the maturity date of the bond	c	Coupon
not	Notional coupon of futures contract		

General Information

- Nominal Value for settlement is rounded to the nearest million
- Each Break Even trade has its own trade-ID in the system. The trade-ID of the two underlying bonds are different. The original Break Even trade-ID is copied as a reference number into the “Text” field of the trade confirmation with leading “BE”, e.g. “BE0001234”.
- The hedge ratio (HR) is calculated in real time (see page 6). If desired, the calculated HR can be published in the “Text” field of the trade confirmation as well.
- For any real:nominal combination the ISIN for Break Even instruments is unique
- The underlying bonds are mentioned in the following fields:
  - nominal bond: ISIN in field “Underlying”
  - real bond: mentioned in the “Name” field of the Break Even instrument
- It is planned to launch French and Italian Break Even instruments in near future.