



# Order book for Retail Bonds

## Accrued Interest on Conventional and Index-linked Gilts

### Introduction

This guide aims to provide additional information on accrued interest for private investors wishing to trade gilts on the London Stock Exchange's electronic Order book for Retail Bonds (ORB). It provides summary information on the various calculation methods for both conventional and index-linked gilts and gives worked examples.

This factsheet may serve as a companion to the brochure, *Trading Bonds on the London Stock Exchange - A Guide for Private Investors*, which gives an overview of the various types of bonds available in addition to introductory information on bond pricing and yields. In particular, this factsheet should be read in conjunction with the factsheet, *Accrued Interest - A Guide for Private Investors*, which provides summary information and worked examples of the various calculation methods for corporate bonds but which also provides a simple calculation for conventional gilts.

### Gilts day count convention

For all gilts, the standard day count convention is ACT/ACT. This means that the calculation for accrued interest takes the actual number of days on which the seller has accrued interest (the period between the previous coupon date and the settlement date of the bond trade) and divides this by the actual number of days in the interest period to determine which proportion of the coupon amount should accrue to the bond seller.

### Conventional gilts

For conventional gilts, a fixed coupon is paid throughout the lifetime of the security until maturity when the gilt is redeemed and the full nominal principal amount invested is returned to the gilt holder.

Accrued interest for conventional gilts is calculated as follows:

$$\text{Accrued Interest} = \frac{\text{actual days between previous coupon and sett. date}}{\text{actual days in coupon period}} \times \frac{\text{coupon amount}}{2}$$

The coupon amount in the above accrued interest formula is divided by 2 because coupon payments on gilts are made semi-annually. The relevant amount when calculating the accrued interest is therefore the amount paid for the six month period in question and not the annual interest rate.

### Example: Accrued Interest on Conventional Gilt (standard dividend period)

<b>ORB identifiers</b>	
<b>Name:</b>	TREASURY 4.5% TREASURY GILT 19
<b>TIDM:</b>	T19
<b>ISIN:</b>	GB00B39R3F84
<b>Coupon dates:</b>	7 March and 7 September
<b>Annual Coupon:</b>	4½%
<b>Trade Date:</b>	11 April 2011 (T+1 settlement on 12 April 2011)
<b>Clean Price:</b>	106.53
<b>Accrued Interest</b>	= $\frac{36 \text{ (period between 7 Mar 2011 and 12 Apr 2011)}}{184 \text{ (period between 7 Mar and 7 Sep 2011)}} \times \frac{4.5}{2}$
	= 0.440217391
<b>Dirty price</b>	= 106.9702174 (clean price + accrued interest)



### Index-linked gilts

Unlike conventional gilts which pay a fixed coupon throughout their lifetime and which return a fixed principal amount at maturity, for index-linked gilts the coupon payments and the principal amount repaid at maturity are adjusted in line with inflation. Adjustments are made using the Retail Price Index (RPI).

There are two types of index-linked gilts which have slightly different calculation methods for adjusting coupon payments and therefore for determining accrued interest.

### 8-month indexation lag gilts

Inflation adjustments to the coupon payments of index-linked gilts with an 8-month lag are made based on the level of the RPI eight months prior to the issue of the gilt (the 'base RPI') and the level of the RPI eight months prior to the relevant coupon payment date (the 'reference RPI').

### Example: Standard Coupon Payment on Index-linked Gilt (8-month indexation lag) (standard dividend period)

#### ORB identifiers

**Name:** TREASURY 2 1/2% IL TREASURY 16  
**TIDM:** TR16  
**ISIN:** GB0009075325

**Standard coupon dates:** 26 January and 26 July  
**Issue date:** 19 January 1983  
**Annual Coupon:** 2½%

**Next Coupon date:** 26 July 2011  
**Base RPI:** 81.622306717364 (May 1982)  
**Reference RPI:** 226.8 (November 2010)

$$\begin{aligned} \text{Coupon payment per } \pounds 100 \text{ nominal} &= \frac{226.8}{81.622306717364} \times \frac{2.5}{2} \\ &= 3.4733 \text{ (rounded down to 4 decimal places)} \end{aligned}$$

Similarly, when calculating accrued interest for index-linked gilts, this ratio of base RPI to reference RPI is also included in the standard accrued interest formula.

### Example: Accrued Interest on Index-linked Gilt (8-month indexation lag)

**Trade Date:** 11 April 2011 (T+1 settlement on 12 April 2011)  
**Clean Price:** 318.03

$$\begin{aligned} \text{Accrued Interest} &= \frac{76 \text{ (period between 26 Jan 2011 and 12 Apr 2011)}}{181 \text{ (period between 26 Jan and 26 Jul 2011)}} \times \left( \frac{2.5}{2} \times \frac{226.8}{81.622306717364} \right) \\ &= 1.4584086 \\ \text{Dirty price} &= 319.4884086 \end{aligned}$$



### 3-month indexation lag gilts

Since September 2005, all new index-linked gilts are now issued with a 3-month indexation lag rather than the 8-month lag detailed above. Coupon payments are adjusted based on the ratio of base RPI three months before the gilt's issue to the reference RPI three months before the coupon payment date, however these RPI values are calculated for each day in the month (rather than a single RPI value being applied for a whole calendar month) based on a linear interpolation between the RPI two months before and the RPI three months before the relevant date. Index ratios are calculated and published for each day.

#### Example: Accrued Interest on Index-linked Gilt (3-month indexation lag) (standard dividend period)

##### ORB identifiers

**Name:** TREASURY 1 1/4% IL TREASURY 22/11/27  
**TIDM:** T27  
**ISIN:** GB00B128DH60

**Standard coupon dates:** 22 May and 22 November  
**Issue date:** 26 April 2006  
**Annual Coupon:** 1 1/4%

**Next Coupon date:** 22 May 2011  
**Base RPI:** 194.06667  
**Reference RPI:** 229.84333

**Index factor** = 1.18435

**Trade Date:** 11 April 2011 (T+1 settlement on 12 April 2011)

**Clean Price:** 106.63

**Accrued Interest** =  $\frac{141 \text{ (period between 22 Nov 2010 and 12 Apr 2011)}}{181 \text{ (period between 22 Nov 2010 and 22 May 2011)}} \times \left( \frac{1.25}{2} \times \frac{1.18435}{81.622306717364} \right)$   
= 0.576634496

**Dirty price** = 126.863875

#### Further Information

Details of the electronic Order book for Retail Bonds are available on the London Stock Exchange web site at:

[www.londonstockexchange.com/bondsmadeeasy](http://www.londonstockexchange.com/bondsmadeeasy)

If you would like to know more about trading bonds on the London Stock Exchange please contact your broker or email the ORB team at:

[bonds@londonstockexchange.com](mailto:bonds@londonstockexchange.com)

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