Investing in Gilts – supplement on 3-month lag index-linked gilts

Since the fourth edition of "*Investing in Gilts*" was published a major development has taken place in the index-linked gilt market in the UK. In September 2005 the first index-linked gilt with a 3-month indexation lag (1¼% Index-linked Treasury Gilt 2055) was issued. Two other 3-month lag bonds have been issued so far (1¼% Index-linked Treasury Gilt 2017 in February 2006 and 1¼% Index-linked Treasury Gilt 2027 in April 2006). All new index-linked gilts issued from 2005-06 onwards will use the 3-month as opposed to the 8-month lag designed used hitherto. The 3-month design is now recognised as international best practice and provides better protection against inflation than the old design. This supplement outlines some of the main features of 3-month lag index-linked gilts.

First a point of continuity: 3-month lag index-linked gilts continue to be linked to the UK Retail Prices Index (RPI) but the indexation is applied in a significantly different way. In addition, 3-month lag gilts trade on a real clean price basis. As a result, the effect of inflation is stripped out of the price of the new gilts for trading purposes, although it is included when such trades are settled.

Indexation methodology

An Index Ratio is applied to calculate the coupon payments, the redemption payment and accrued interest. The Index Ratio for a gilt measures the growth in the RPI since it was first issued. For a given date it is defined as the ratio of the reference RPI applicable to that date divided by the reference RPI applicable to the original issue date of the gilt (rounded to the nearest 5th decimal place).

The reference RPI for the first calendar day of any month is the RPI for the month three months previously (e.g. the reference RPI for 1 June is the RPI for March). The reference RPI for any other day in a month is calculated by linear interpolation between the reference RPI applicable to the first calendar day of the month in which the day falls and the reference RPI applicable to the first calendar day of the month immediately following. Interpolated values should be rounded to the nearest 5th decimal place.

Daily index ratios and reference RPIs are published on the DMO website. Index ratios are published at www.dmo.gov.uk/index.aspx?page=Gilts/Indexlinked following the publication of the RPI each month[1]. Reference RPIs are published at www.dmo.gov.uk/index.aspx?page=Gilts/Gilts_In_Issue (then select the gilts in issue link).

Price features

Index-linked gilts with a three-month lag trade, and are issued, on the basis of the Real Clean Price per £100 nominal.

The Inflation-adjusted Clean Price per £100 nominal on a given day is calculated by multiplying the Real Clean Price for that day by the Index Ratio for the corresponding settlement date (normally the following business day)[2].

For example, if 1¼% Index-linked Treasury Gilt 2055 was traded on 1 February 2006 at a Real Clean Price of £127.02 for settlement on 2 February, then the Inflation-adjusted Clean Price for 1 February would be calculated as:
Inflation-adjusted Clean Price = £127.02 x 1.00738 = £127.9574076 (where 1.00738 is the Index Ratio for 2 February).
The Inflation-adjusted Dirty Price per £100 nominal on a given day is calculated by adding the Inflation-adjusted Accrued Interest[3] to the Inflation-adjusted Clean Price.
Daily reference prices and yields for all gilts are published on the DMO website at www.dmo.gov.uk/index.aspx?page=Gilts/Daily_Prices.

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[1] For more details about these calculations see Annex B of the third edition of the DMO publication "*Formulae for Calculating Gilt Prices from Yields*" available on the DMO website at http://www.dmo.gov.uk/documentview.aspx?docname=/giltsmarket/formulae/yldeqns.pdf&page=Gilts/Formulae. This publication also includes all relevant technical details for 3-month and 8-month lag index-linked gilts.
[2] This amount is left unrounded.
[3] Calculated by multiplying the Real Accrued Interest amount by the Index Ratio for the settlement date.