UK DEBT MANAGEMENT OFFICE

GILT-EDGED STOCK SWITCH AUCTIONS: PROPOSALS FOR CONSULTATION

1 Following the successful completion of three gilt conversion offers in 1998-99, the Treasury's remit to the DMO for 1999-2000 raised the possibility of further conversion offers being supplemented by switch auctions into benchmark stocks. This document outlines how the DMO proposes to conduct any such offers. The DMO welcomes comments on the proposed methodology and will publish a statement finalising these details prior to any such offer being made. The DMO will judge switch auction candidates on their merits on a case-by-case basis and gives no commitment that, even if a candidate stock meets the various criteria set out below, an offer will be made.

2 In addition, the paper outlines a way in which the DMO could widen the range of outright conversion offers that it is prepared to consider by including a cash payment as part of the offer. The intention would be to reduce the difference in the risk characteristics of the two sides of the offer, so reducing the risk to the Exchequer associated with holding the offer open at fixed terms for three weeks. The way in which such an offer might work is outlined below but is potentially more complex than standard conversion offers and less attractive to some market participants. The DMO is therefore interested to hear market participants' views on whether this innovation is worth taking forward.

3 Any comments on the questions about switch and conversion offer methodology set out below should be sent by Friday 30th July 1999 to: *Paul Mills, UK Debt Management Office, 1st Floor, Cheapside House, 138 Cheapside, LONDON, EC2V 6BB; Telephone 0171 862 6521; Fax 0171 862 6509; paul.mills@dmo.gov.uk.* (Interested market participants may also wish to refer to the DMO's consultation document on conversion offer methodology of 4th August 1998, and the follow-up statement in the light of responses of 16th November 1998, both available on the DMO's website www.dmo.gov.uk).

Gilt Switch Auctions

Rationale:

4 As with outright gilt conversion offers, the aim of switch auctions would be to:

- build-up the size of new gilt benchmark stocks more quickly than can be achieved through outright auctions alone. This has become more important in the current low-issuance environment;
- increase the size and proportion of strippable issues faster than would otherwise be possible.

In addition, however, switch auctions could also:

- allow the DMO to smooth the immediate gilt redemption profile by offering switches out of large ultra-short issues into the current 5-year benchmark (or other short-term instruments);
- facilitate switching longer by index-tracking funds as a particular stock is about to fall out of a significant maturity bracket, so contributing to market stability.

Potential Switch Auction Candidate Stocks

5 Outright conversion offers currently made by the DMO are designed to convert a large proportion of the source stock into the destination stock. If a sufficient amount of the stock is converted, the DMO declares it to be a 'rump' issue, relaxes market-making obligations in the stock and is prepared to bid on request for the residual. Also, the DMO has indicated that it does not intend making conversion offers for stocks that are less than around 5 years to maturity and which are in excess of £5 billion (nominal) in issue.

6 Switch auctions would be held only for a proportion of a larger stock that was too large to be considered for an outright conversion offer. Following a switch auction, the DMO would ensure that a sufficient amount of the source stock would remain for a viable, liquid market to be expected to exist. Hence, **the DMO would not hold a switch auction for a stock that would reduce the amount in issue to below £5 billion (nominal).** Given that the minimum size of such an offer is envisaged as £½ billion (nominal) of the source stock (see below), stocks of less than £5½ billion

(nominal) in issue would not be made subject to a switch auction. However**, switch auctions <u>would</u> be considered for stocks of less than 5 years' to maturity** (with £5½ billion (nominal) or more in issue).

7 Given the objective of using conversion offers and switch auctions to build up liquidity into current and future strippable benchmark issues faster than would otherwise be possible, the initial focus of switch auctions would be on large non-strippable issues. However, as the number of such issues declines, the attractions of making switch auctions out of existing strippable stocks will increase. This will arise particularly at the ultra-short end of the maturity spectrum as large strippable issues approach maturity.

8 The choices of the pairs of stocks that the DMO could consider holding a switch auction for would be less constrained than for an outright conversion offer. This arises because the terms at which the stocks will be exchanged will be determined in line with market yields at close of bidding. The Exchequer would therefore not be exposed to the same degree of yield curve risk that a conversion offer entails (where the conversion ratio is fixed for three weeks). This means that switch auction stocks that have a marked duration difference could be considered as candidates. Although technically possible, **switch auctions would <u>not</u> be used as a means to issue entirely new stocks to the market**. The destination stock of a switch auction would need to have been auctioned outright at least once prior to any switch auction.

9 When considering candidates for switch auctions, the DMO would need to ensure that the switching opportunity was sufficiently attractive for a significant proportion of the existing holders of the source stock. This suggests that auctions with too large a disparity in maturity would not necessarily be attractive to the stocks' existing investors. **Hence, the DMO would envisage only holding switch auctions where both the respective stocks were within the same maturity bracket (short and ultra-short 0-7 years; medium 7-15 years; longs 15 years and over).** This constraint should ensure that switch auctions should not result in excessive forced rebalancing by index-tracking investors. Unlike outright conversion offers, the DMO would expect full market-making obligations to be met for stocks out of which a successful switch auction had been held. This is on the basis that at least £5 billion (nominal) of the stock would continue in issue following the auction.

10 ***Interaction of Switch Auctions with Deliverability into Futures Contracts****:* As with conversion offers, the DMO would not hold a switch auction that significantly impinged on the liquidity or trading of gilt futures contracts. LIFFE has confirmed that holding a switch auction out of a source stock that is in the deliverable futures basket does not cause a problem in principle. However, there would be a risk of disruption if an offer was made for a stock that was cheapest-to-deliver for a listed contract. Hence, **the DMO commits not to hold a switch auction for a stock that is cheapest-to-deliver, or has a reasonable likelihood of becoming cheapest-to-deliver, for any of the listed gilt futures contracts on LIFFE (or other gilt contracts that may be listed on recognised exchanges).**

11 Unlike conversion offers, deliverability into gilt futures contracts would <u>not</u> impose a constraint on the timing of a switch auction if the source stock was in the deliverable basket. Given that at least £5 billion (nominal) of the source stock would remain in issue after a switch auction, the stock would remain in the deliverable basket and the definitive 'List of Deliverable Gilts' into a futures contract would be unchanged.

The Size and Frequency of Switch Auctions

12 Initially, **the DMO envisages that switch auctions would be held with a possible maximum of £½-2 billion (nominal) of the source stock being available to be switched.** The <u>actual</u> maximum size of the amount of the source stock available for switching at a particular switch auction would be published eight days before the auction itself (see proposed auction timetable below).

13 The frequency of such auctions within a financial year would depend on the level of gross gilt issuance, the potential for outright conversion offers and the availability of potential candidate stocks. The fewer outright auctions of stocks that the DMO needs to hold in a year to meet the Treasury's debt management remit, the more opportunity there would be to hold switch auctions (through appropriate time slots being available) and the greater the need (in terms of building up new benchmarks more quickly). The DMO would not hold a switch auction into a stock that had been auctioned outright less than 21 days earlier.

The Switch Auction Format and Process

14 ***The Auction Format**:* As with conventional gilt auctions, the DMO envisages that the switch auction process will be of a competitive, bid-price format. Rather than expecting GEMMs to bid a switch ratio, the DMO would publish an indicative clean price of the existing source stock, derived from market information as to where that stock was trading, prior to the opening of bidding. GEMMs would then be able to bid a clean price for the new destination stock (with the relevant nominal quantity of the source stock that they were willing to switch at that price). The DMO would rank the bids according to the prices bid for the destination stock and allot the switch to the highest bidders. Given that the Exchequer does not need to conduct such an operation for financing reasons, before accepting any bids, the DMO would be mindful of fair value in the market and would reject bids it judged to be at an excessive discount.

15 Fixing the price of one of the legs of the switch enables bidders to submit only a schedule of single price-quantity pairs, so simplifying the bidding process. Settlement would nevertheless be on the dirty price equivalent of the clean prices of the two stocks.

16 As with an outright auction, the holders of the source stock who bid the highest prices for the destination stock would have their bids filled first. (Essentially, the higher the price bid for the destination stock, the lower the dirty price switch ratio implied and the greater the relative value the holders of the source stock place on the destination stock.) Bidding would be limited to GEMMs. A non-competitive bidding facility for GEMMs or retail investors would not be available.

17 Eight days prior to the auction, the DMO would precommit to a maximum quantity of the source stock that would be available for switching via the auction. (Given prevailing prices in the market, this will give an approximate indication of the maximum amount of the destination stock that could be created via the switch auction process.) The DMO would hope to effect a switch out of this quantity of the source stock through the auction process. **However, if bids for the destination stock were at too great a discount to the relative prices prevailing in the**

market, the DMO would reserve the right not to effect the switch of some or all of the competitive bids submitted.

Timetable:

18 In order to improve the familiarity of the new process, the proposed institutional details of the switch auction are designed to be as close as possible to that of an outright gilt auction:

- The possibility and range for the potential size of switch auctions would be specified in the Treasury's annual remit to the DMO published in the Debt Management Report (see paragraph 24 of the DMO's remit for 1999-2000 in HM Treasury's Debt Management Report).
- Unlike conversion offers, however, the DMO proposes that it would preannounce the auction and settlement date(s) of switch auction(s) in the quarterly auction calendar, including the stocks involved. This would follow the usual consultation with market participants at the relevant quarterly meetings. As with standard auctions, switch auctions would normally be scheduled for Wednesday mornings with next day settlement.
- On the Tuesday of the week prior to the switch auction, a press notice would be issued confirming the details of the switch auction, settlement date and maximum size. However, given the uncertainty over the amount of the destination stock to be created as a result of the switch auction, this stock would <u>not</u> be created and listed until settlement (as with a conversion offer). Consequently, a formal 'when-issued' market in the new stock would not exist.
- On the switch auction day:

- At 10am, the DMO would publish on its wire service screens an indicative clean price for the source stock involved in the switch auction.
- Between 10.00 and 10.20am, Gilt-edged Market-Makers (GEMMs) would be allowed an unlimited number of telephone bids to switch a nominal quantity of the source stock into the destination stock at the clean price of the destination stock (given the indicated 10am clean price of the source stock).
- Between 10.20 and 10.30am, GEMMs would be allowed up to 10 telephone bids to switch a nominal quantity of the source stock into the destination stock at the clean price of the destination stock (given the indicated 10am clean price of the source stock).
- By 11.10am, the DMO would aim to publish the results of the switch auction. These would include the highest, lowest and average clean prices of the destination stock which were successful, and their dirty price ratio equivalents; the percentage allotted of the bids at the lowest accepted price; the nominal

amount of the source stock that would be switched; and the nominal amount of the destination stock that will be created as a result.

- Settlement of the switch auction would normally occur the following working day.

19 Prior to conducting a switch auction, the DMO would amend and republish its operational market notice to outline how such an auction would be conducted.

Questions for Market Participants

20 Whilst the Treasury and DMO are keen to add switch auctions to the authorities' debt management tools, many of the above details are not fixed requirements of the process. In particular, we would welcome views on the following questions:

- Is a £½-2 billion (nominal) possible range the most appropriate for switch auctions?
- Should the authorities be more ambitious in the maturity mismatch that they are prepared to countenance in switch auctions – ie. switches between stocks well outside the same maturity bracket?
- Are the pricing and bidding mechanisms suggested (clean price bidding with a clean price fix 30 minutes before the close of bidding), with settlement according to the relevant dirty prices, the most easily understood by potential bidders? Or would bidders prefer the format to be in terms of a clean price ratio?
- Is limiting the offer to holders bidding via GEMMs acceptable? In particular, would smaller scale holders object to having to participate via a broker rather than having a non-competitive bidding facility available?

A Possible Development of Outright Gilt Conversion Methodology

21 Whilst the Treasury and DMO would envisage having the capability to conduct switch auctions in this and coming financial years, a further possibility is that a cash element could be included in the standard outright gilt conversion offer open to all holders of the original source stock.

'Cash-plus' Conversion Offers

22 Currently, the range of outright conversion candidates available to the UK authorities is limited by the need to choose candidates that have similar risk characteristics in order to minimise the risk the Exchequer faces by fixing conversion terms for three weeks. If market yields move significantly in that period, the Exchequer is exposed to the risk that it has either offered very favourable terms to holders in hindsight, or that the terms have deteriorated and there is a risk that insufficient of the stock is converted to produce a 'rump' issue.

23 The range of candidates for outright conversion could be expanded if a cash element to the offer were possible. A cash element would enable the risk characteristics of the two sides of the offer to be brought closer together, so permitting the consideration of a wider range of alternative stocks for conversion. Many features of 'cash-plus' conversion offers would be the same as for standard conversion offers. However, the two key differences in the format would be:

(a) The conversion rate would specify the nominal amount of destination stock plus the cash value to be paid out per £100 nominal of the source stock offered[1]. If the DMO were to set the PV01[2] of the two sides of the offer to be exactly equal, the DMO's methodology for calculating this stock/cash combination would be as follows:

[1] The DMO would not make offers where, in addition to the source stock offered, a cash payment is required <u>from</u> holders to receive a given nominal value of destination stock.
[2] The price value of one basis point (PV01). Essentially, the DMO would be setting the terms of the conversion so that the two sides of the offer would experience the same absolute change in value for a given change in the level of the yields.

$$Q_D = \frac{PV01_S}{PV01_D} \times 100$$ (Destination stock)

where: Q_D = Nominal amount of destination stock per £100 nominal of source stock

$PV01_S$ = Forward PV01 of source stock (to settlement date)

$PV01_D$ = Forward PV01 of destination stock (to settlement date)

$$Cash = DP_S - \left(\frac{Q_D}{100} \times DP_D\right)$$ (Cash)

where: $Cash$ = Cash paid per £100 nominal of source stock

DP_S = Forward dirty price of source stock (to settlement date)

DP_D = Forward dirty price of destination stock (to settlement date)

24 This method ensures that the combined value of the destination stock and cash paid out is equal to the value of the source stock offered, whilst ensuring value neutrality for a given change in yields.

25 However, the cash element to achieve exact risk neutrality could be large, depending on the difference in risk characteristics and dirty prices of both stocks. This may not be attractive to some holders of the source stock that would be faced with a large cash payment to reinvest. In such cases, an alternative would be for the DMO to reduce, but not eliminate, the risk mismatch between the two sides of the offer by including a smaller cash, and larger stock, element in the conversion offer.

(b) The most convenient method of cash payment during such a conversion offer would be to use the BACS system, the same payment system that is used for standard coupon and redemption payments. Use of BACS, rather than CHAPS, would be less expensive to process the cash payment but would mean that the settlement timetable for the offer would be slightly longer than that for standard conversion offers (see below).

Example:

26 The following example illustrates the conversion offer of 12½% Treasury Stock 2003-05 into 6½% Treasury Stock 2003 on 1 February 1999 based on a cash-plus methodology. The actual conversion terms were set on 7 January as £124.10 nominal of 6½% Treasury Stock 2003 per £100 nominal of 12½% Treasury Stock 2003-05.

27 The cash-plus method would have indicated that, for every £100 (nominal) of 12½% Treasury Stock 2003-05, a combination of £112.62 (nominal) of 6½% Treasury Stock 2003 and a £12.57 cash payment was offered. This offer would have equalised both the net present values and the PV01s of the two sides of the offer. These would have been the terms published on 7 January 1999.[3]

28 There are, of course, a number of alternative combinations of cash payments and conversion ratios that could deliver a reduction in the risk mismatch between the two sides of the offer, relative to the original conversion terms. In effect, the smaller the cash element, the larger the likely risk mismatch and the greater the exposure of the Exchequer to yield curve movements.

Timetable

29 The timetable for cash-plus conversion offers would be much the same as for standard conversion offers. However, unlike standard offers, for administrative reasons cash-plus offers would be restricted to off-coupon dates for both stocks and would also have to take place outside both stocks' ex-dividend periods. In addition, the period between the close of offer and the conversion date would be extended by five working days to allow time for Registrar's Department to process the cash payments.

30 The timetable for a cash-plus conversion offer would therefore be:

[3] In practice, the timetable would have been modified slightly at the end to allow time for the cash payments to be made. This would have slightly affected the dirty price conversion offer ratio as settlement would have been delayed a few days.

- **C-21 days:** DMO announces conversion stocks, terms and the size of the cash element. Inform holders;

- **'C'-day:** offer closes, preliminary result announced and DMO states whether source stock is to be treated as a 'rump';

- **C+ 6 to 8 working days[4]:** DMO announces final result; creation of further amount of destination stock; cash payment made; settlement of stock component.

Tax Treatment

31 As with a standard conversion offer, the precise tax treatment of the cash element of a cash-plus conversion offer for corporate holders of the source stock will depend on the method of accounting for profits and losses on their bond holdings adopted in their accounts.

32 For individual holders of the source stock who accept such an offer, the cash element would normally be treated by the Inland Revenue as a crystallised capital gain and therefore not taxable as income. This is analogous to the tax treatment of a personal holder's capital gain entailed by an acceptance of a standard conversion offer.[5]

Questions for Market Participants

33 The DMO would welcome views from market practitioners on the following issues:

- Would gilt investors welcome this new form of conversion offer if it permitted more offers for smaller less liquid stocks to be made?

- If there were a choice, which would be the more preferable type of offer: a standard conversion offer with no cash payout or a cash-plus conversion offer with a cash payout and less stock?

- What would be the maximum acceptable cash payout per £100 nominal of source stock for a cash-plus offer? Would holders of potential conversion candidates prefer a higher cash payment and lower stock element or vice versa?

[4] Depending on the number of retail holders of the source stock.
[5] This section does not constitute tax advice. The Inland Revenue would expect taxpayers to consult their own advisors in the event of such an offer.