REPORT ON BOND EXCHANGES AND DEBT BUY-BACKS

A SURVEY OF PRACTICE BY EC DEBT MANAGERS[†]

In June 2001 a questionnaire covering the practices followed by debt managers implementing bond exchange or buy-back operations was distributed, by the UK, to members of the Economic and Financial Committee's Group on EU Government Bonds and Bills Markets. Thirteen responses were received; a full list of respondents is included at Annex A. This paper briefly reviews those responses.

SUMMARY OF RESULTS

1 Unsurprisingly there were many common themes running through the responses. For example, the primary reason for conducting a bond exchange was to help build liquidity in current (or new) benchmarks in a period of limited financing. However, there was also a general consensus that bond exchanges can be a useful tool to smooth the redemption profile faced by issuers.

2 Similarly, many countries buy-back securities that are nearing maturity to help smooth the profile of redemptions. Again, buy-backs of debt with longer residual maturity are done in order to maximise issuance of current benchmark issues. Where reverse auctions are employed to effect these debt buy-buy-backs, then they are conducted on a competitive offer basis.

3 The benefits of operating a bond exchange operation are, by and large, difficult to quantify. However, members are more successful in quantifying the success of buy-back operations.

4 Further details of the responses received are presented below.

BOND EXCHANGES

5 As outlined in Table 1, ten countries have conducted or do conduct bond exchanges. Italy plans to start conducting exchanges in the near future. Three respondents, including ECFIN-FOS[1], do not carry out any such exchanges.

[†] This report reflects those practices that were in place in 2001; subsequent changes to those practices are not captured.

TABLE 1

Conduct bond exchanges	Do not conduct bond exchanges
Belgium	Austria
Denmark	EC
Finland	Germany
Greece	
Ireland	
Italy	
Netherlands	
Portugal	
Spain	
Sweden	
UK	

6 Bond exchanges are primarily used to help build large, liquid, current coupon, benchmark issues while retiring older, less liquid bonds; especially where countries have limited financing needs.

7 In addition, bond exchanges are also considered to help:

- alter the profile of the government's debt portfolio;
- smooth interest and redemption profiles;
- refinance the government's debt at more attractive levels, while reducing refinancing risk; and
- investors restructure their portfolio in an efficient manner, thus increasing their market participation and maintaining market stability at times when the composition of an index changes.

However the benefits arising from these operations are considered to be difficult to quantify.

8 The most notable costs arising from exchanges either relate to price movements between the announcement of and the close of the operation (market risk), and / or the reputational risk that the operation may be unsuccessful. Other risks mentioned include:

[1] ECFIN-FOS manages the debt of three borrowers - the EC, ECSC and EURATOM. A bond exchange would change the terms of the funding and so would breach the relevant borrowing/loan authorisations.

- the source stock and destination stock could both finish illiquid;
- there may be budgetary costs (a premium may have to be paid to obtain a significant amount of the stock); and
- locking in unattractive forward rates.

9 The usual credit and operational risks associated with any operation also apply.

10 In the case of Finland, there is the additional risk that a shortfall in funding could arise if the amount issued at the second auction is much smaller than the amount bought-back in the auction the previous hour (see below).

11 Countries are roughly split on using a fixed price or an auction format for conducting exchange operations (see Table 2).

Table 2

Fixed Price	Auction
Belgium (Exchange Offers)	Belgium (Exchange Auctions)*
Finland*	Denmark
Greece	Finland
Ireland	Netherlands
Sweden (Bilateral operations)	Spain
UK (Conversions)	Sweden
	UK (Switch Auctions)

**Yet to be introduced*.

<u>Fixed Price Exchanges</u>

12 For those countries that conduct exchanges on a fixed price basis, the price is typically derived from observed market prices or internal analytics, with some flexibility to alter prices if necessary.

13 The approach in Belgium and the UK is quite similar. Belgium uses an internal pricing model to set the ratio between the clean price of the destination stock and the dirty price of the source stock on the day of the transaction; a committee can alter this prior to publication. The UK uses its estimated yield curve to set the dirty-price conversion ratio for the offer. Again, the UK will retain some discretion to adjust this ratio, to take some account of the observed cheap/dear characteristics of the source and destination stocks.

14 Ireland takes into account the spread against bunds and sets the (dirty-price) fixed terms of the conversion based on observed market prices. Where the destination bond is a new issue, it will be priced with reference to an appropriate yield spread over bunds. Like Belgium and the UK, Ireland has the ability to modify the price at its discretion. The price of the bond(s) will be monitored in the run-up to the exchange. A final adjustment to the offer terms will be made to take account of any signs of price manipulation, to reflect local market conditions and the potential benefit to investors in being able to switch from a less liquid to a more liquid bond.

15 Greece and Sweden conduct their fixed-price exchanges on a bilateral basis. Greece uses the prevailing price in the electronic secondary market with scope to negotiate depending on the characteristics of the bonds being exchanged and on the investment policy and needs of the counterparties. Sweden determines the price either by using an average of market quotes or a theoretical price based on the Extended Nelson and Siegel and bootstrap models.

Exchange Auctions

16 For those who use an auction format, Belgium, Denmark, Spain and the UK (index-linked switch auctions) use a uniform price basis. Finland, Sweden and the UK (conventional switch auctions) use a competitive price basis.

17 Different countries use different formats for submitting bids. Denmark, Netherlands and Spain fix the clean price of the destination bond and ask for bids in the form of the clean price and amount of the source bond. Whereas the UK and Sweden set the price for the source stock and participants submit bids in the form of the price of destination stock and amount of source stock offered.

18 Finland actually uses two separate auctions – the first, a buy-back, followed one hour later by an issue of stock. Investors can only participate in one of the two operations. They have also used straight exchanges in the past where one bond has been directly changed to another in a competitive auction. This method has not been used since 1999.

Other characteristics

19 The methodology used for calculating settlement amounts varies by respondent. Finland and Greece issue the same nominal amount of the destination bond as nominal amount of the source bond exchanged, settling any differences in cash. Denmark, Ireland, Sweden and the UK scale the nominal amount of the source bond exchanged by the dirty-price ratio to calculate the amount of the destination bond to issue. Belgium uses an exchange ratio of clean price of the destination stock to dirty price of the source stock.

20 Denmark, Finland, Ireland, Spain and the UK constrain the size of their exchange operations. Denmark sets a maximum amount of stock to be switched in order to alleviate possible market uncertainty; Finland is constrained by its state budget that limits capital losses from exchanges and buy-backs; Ireland pays attention to any effect that operations will have on the Debt/GDP ratio; Spain tries to minimise its impact on the secondary market and the UK limits the size of conversions and switches to mitigate the event and market risk involved. Belgium can restrict the size of an offer but, to date, has chosen not to do this. Greece and the Netherlands are not constrained in the size of their exchange operations. Sweden takes into account the liquidity of the market but, also, has no formal constraints on exchange auctions. However, it reserves the right to cut back the amount switched if the prices differ from market prices too much. With respect to bilateral exchanges, Sweden limits the amount of index-linked bonds that can be exchanged to 100mn SEK per day and 250mn SEK per dealer per week in the shortest duration bond.

21 Criteria for selecting the source stock vary by country, however typically the destination stock will be a current benchmark. Some, such as Belgium or Greece, select short-dated source stocks. Ireland will usually exchange bonds with longer than 18-24 months residual maturity. Like other debt managers, such as Denmark and Finland, Greece also seeks to exchange illiquid off-the-run bonds (in practice FRNs). In selecting source stocks, Denmark also considers the redemption profile of its debt and, like the UK, will only switch stocks of similar maturity. Sweden considers its funding requirement, debt structure, liquidity of the market and also its duration target. With respect to its bilateral exchanges, it will consider exchanging

bonds with less than one-year residual maturity for bills while index-linked exchanges can be conducted on a duration neutral basis.

22 Operations are also announced with a varying time-scale by country. Belgium publishes an annual calendar of its planned exchange offers, although it is only likely to give 1-2 weeks notice of an exchange auction. The UK announces its conversions three weeks in advance, but will announce switch auctions on the last business day of the quarter preceding the quarter in which they fall. The Netherlands gives a couple of weeks notice of its exchange operations while Sweden and Finland give one week's notice of their operations. Ireland announces its exchange operations two days in advance. Denmark gave the market one week's notice of its first exchange operation, but two-day's notice of the second. Due to their bilateral nature, there is no pre-announcement of Greek operations.

23 The number of stocks exchanged in each operation also varies by country. In Belgium, for example, exchange offers are carried out on a one-to-multiple basis (usually 1-8). Denmark carried out its first switch on a 2-1 basis, with Ireland and Spain also carrying out exchanges for multiple stocks. In the Irish Securities Exchange Programme carried out in May 1999, on each of the 3 days of the operations, they were two source bonds and 2 or 3 destination bonds. Ireland also carries out one-for-one exchanges. The Netherlands, like Sweden and the UK, exchange one-for-one, however the Netherlands conducts a number of exchanges simultaneously.

24 Using multiple stocks requires a method for ranking the bids received. Denmark provides a good example. The bids for the two issues bought back are assessed on the basis of the yield spread to the security being issued. It also takes into account whether the spreads are in line with the market and how they have moved since the announcement of the auction. In addition a yield curve is used to assess the relative attractiveness of the bids submitted for the two securities bought back.

25 Participation in exchange events is limited in a number of member countries. Most restrict participation to primary dealers, as is the case in Belgium, Finland and Ireland. In the UK (switch auction), Sweden and Finland, all holders of the bond can participate, although they must submit bids via primary dealers. All bond holders,

including retail investors, can participate in UK conversions. Other countries have a wider participation base. In Denmark, entities authorised to trade on the Copenhagen Stock Exchange are eligible to participate; and in Spain, market members can participate although extra time is given to primary dealers.

DEBT BUY-BACKS

26 Of the fourteen respondents, twelve conduct debt buy-backs (see Table 3):

Table 3

Have conducted or do conduct debt buy-backs	Do not conduct debt buy-backs
Austria	EC
Belgium	Germany
Denmark	
Finland	
Greece	
Ireland	
Italy	
Netherlands	
Portugal	
Spain	
Sweden	
UK	

27 A brief overview of some countries' buy-back programmes is given below.

28 Denmark has conducted buy-backs through tap purchase in the market for a number of years. In 2000, the Danish central government bought back DKK 48.5 billion (nominal) of government securities, of which DKK 31.0 billion was of securities maturing that year. A list of government securities eligible for buy-back is published and updated at least on a bi-annual basis. In addition to the direct central government buy-backs, the Social Pension Fund purchased DKK 18.5 billion (nominal) of government securities for its own portfolio.

29 The Finnish State Treasury has traditionally offered investors an option to sell back or exchange a benchmark bond one year prior to its maturity date. In recent years, buy-backs have been extended to cover other bonds as well, i.e. benchmarks with a longer maturity and eurobonds denominated in the Euro legacy currencies.

30 Italy is prepared to buy-back off-the-run illiquid bonds that have relatively small amounts outstanding. In addition they are prepared to buy-back foreign currency debt and Euro legacy currency debt. These buy-back operations are carried out on an ad hoc basis rather than by way of formal structured programmes.

31 The UK DMO instigated a formal buy-back programme in 2000-01 (£5.7bn of buy-backs). This programme included a series of reverse auctions, as well as bilateral purchases. Similar to Italy, the UK has an ongoing commitment to buy-back on request small, illiquid, “rump” stocks. In addition, similar to the approach in Belgium, Finland and Sweden, it also has the ongoing flexibility to buy-back bonds close to maturity. In the UK this means bonds with less than 6 months residual maturity; in Belgium, Finland and Sweden this means bonds with up to 12-months residual maturity.

32 As with bond exchanges, debt buy-backs are conducted for similar reasons, i.e. to increase liquidity through buying back old illiquid bonds (allowing more issuance into benchmarks), especially where countries have limited financing requirements, or to smooth the profile of redemptions, mitigating the refinancing risk issuers face. Other reasons are to offset large cash income and remove small stocks.

Table 4

	Nearing redemption	Off-the-runs/ illiquid/ high-coupon/ non-standard	Other criteria
Austria			Co-ordination of investor wishes and Austria’s debt policy
Belgium	1 year or less		
Denmark		Yes	Maturity profile of government debt is taken into account
Finland	1 year or less	Yes	
Greece	Usually FRN issues with a maturity up to 2004	Yes	Bonds should preferably have a coupon payment date falling in the next year rather than in the year in which the buy back is conducted
Ireland		Yes	Not complex structured deals
Italy		Yes	Bonds trading below par
Netherlands		Yes	
Portugal		Yes	
Spain			Those that may cause large redemptions concentrated in a short period of time
Sweden	1 year or less		Bonds with high coupons and if two bonds are maturing in the same year. Other considerations are the duration target, pricing of the bond and the liquidity of the market.
UK	6 months or less	Yes	

33 The criteria used for selecting bonds to be repurchased vary significantly, as can be seen in Table 4 above.

34 With the exception of Belgium, Sweden and Ireland, countries have the flexibility to buy-back more than one bond in a single operation. Finland bought back eight different bonds in October 2000, and the Netherlands have typically bought back five in the past.

35 The typical methodology for buying back bonds is either through reverse auctions or through bilateral secondary market purchases; and as Table 5 shows, their usage varies by country.

Table 5

	Reverse Auction	Secondary Market	Comments
Austria	X	X	
Belgium	X	X	
Denmark		X	
Finland	X	X	In addition to reverse auctions, the State Treasury has arranged two buy-back windows.
Greece	X		
Ireland		X	
Italy	X		Intermediaries are also used (see below).
Netherlands		X	
Portugal	X	X	Buy-back windows are also used
Spain		X	
Sweden	X		SNDO has dialogue with the market
UK	X	X	

36 Currently, Italy also uses intermediaries to buy-back debt. In this case the Director General of the Italian Treasury (or the Head of Public Debt Management) awards an intermediary with a mandate to buy-back specific bonds within a specified deadline. The Treasury can award the mandate only to the Bank of Italy or to one or more of the Specialist Primary Dealers. When giving the mandate the Treasury specifies the type and maximum amount of the security; the deadline for completion of the operations; the settlement date; the maximum price that the Treasury will pay for each bond; and any fees due to the selected intermediaries. The Treasury always retains the option to modify the maximum price should market conditions change sharply during the operations. Other methods may also be considered in the future.

37 Countries that fix a price for their buy-back operations typically take account of prevailing market conditions, spreads and liquidity premia. In addition to considering current market levels, Austria also considers the yield premium on illiquid bonds; Belgium uses an internal pricing model, as does Sweden (based on the Extended Nelson & Siegel and Bootstrap models); the Netherlands adds a premium after pricing its benchmarks; and Italy sets it price taking account of where the bond is trading relative to LIBOR. For near-maturity purchases, the UK takes account of prevailing money-market conditions, while for longer-dated bonds it will adjust the current level of the yield curve by an appropriate spread. Denmark uses the market price available through the secondary market electronic trading system. Finland and Portugal price against swap curves. For one Finnish buy-back window, the price was defined as a yield spread, with the final cash price derived from reference to the mid swap curve (although their State Treasury reserved the right to alter the repurchase spread from time to time during the buy-back window, depending on market conditions). Portugal sets its prices based on a spread against the interpolated swap curve, although on their bilateral buy-backs, a bid is made on demand with due regard for prevailing market conditions. Ireland set their price by reference to the cost of alternative Euro denominated borrowing of a similar duration.

38 For those who use buy-back windows, the price is usually published and fixed for the duration of the window. The price involved in a bilateral trade is not generally published.

39 All reverse auctions are carried out using a competitive price format, with participants typically submitting the nominal amount of stock they are prepared to offer at the price they are willing to accept; Portugal also requires yields to be submitted.

40 Belgium, Netherlands, UK and Denmark all use a yield curve to rank competing offers; however, the UK is the only country to publish details of its yield curve (described in an article in the UK DMO's Annual Review 2000).

41 The announcement of buy-back operations varies from those pre-announced a couple of days before, to those announced on a quarterly basis. The UK announces its reverse auctions as part of its quarterly schedule. Spain warns its primary dealers

that it may operate buy-backs in the coming months, giving an estimate of total amount and maturity. The bonds to be bought back are then confirmed the day before the operation. Other member countries give less notice. The Netherlands announces its operations a couple of weeks in advance, Belgium 1-2 weeks in advance, Finland and Sweden a week in advance, Portugal notifies the market some days in advance, as does Greece, who announce at least 3 days ahead of any operation.

42 In most countries, the bonds purchased as part of a debt buy-back programme are cancelled immediately. However there are exceptions – Austria do not cancel the bonds that they buy-back. The UK only cancels those bonds that are bought back in a reverse auction. Spain is also considering the possibility of holding those bonds they buy-back in order to use them as collateral in the repo market and to help alleviate tensions in the secondary market.

43 Differing measures are also used to determine whether or not a buy-back has achieved value for money, typically yield spreads or swap spreads. Belgium compares the value of the bond with the yield on Belgian T-Bills and the spread to Euribor. Italy examines the levels relative to prevailing market conditions and the spread to LIBOR. In addition to the prevailing market conditions, Sweden takes into account the effect on the secondary market. The Netherlands examines the market price, and how the premium is split as compared to asset swap spreads, historical prices and anecdotal evidence. Spain also compares the asset swap spread of the bonds it is buying with those it is issuing. Denmark, Greece and the UK all use their yield curves in determining whether they have achieved value for money (on the basis of cheap/dear characteristics). In the instance of near maturity purchases, the UK also considers the alternative return available in the money markets. Finland makes comparisons between buy-back prices and issue prices.

44 As with bond exchanges, participation is typically limited, with only Austria, Finland and Greece not limiting involvement. In general, participation is limited to primary dealers. This is the case in Portugal, Spain and Ireland.[2] But there are regional differences. For example, in Belgium, participation is restricted to primary

[2] Although Ireland places no restrictions on who it will deal with when buying back foreign currency debt, including debt denominated in legacy currencies other than punts.

and recognised dealers, the Securities Regulation Fund, the “Depot and Consignment Office” and the “Fonds monétaire/Muntfonds”. Both Denmark and the Netherlands restrict participation on the basis of stock exchange membership. In Denmark only entities authorised to trade on the Copenhagen Stock Exchange can take part in buy-back operations and in the Netherlands participation is restricted to domestic and remote members of the stock exchange. In the UK, for bilateral purchases of near-maturity and “rumps”, only recognised market makers can request a bid. In reverse auctions, all holders of the source stocks can participate; however, only market makers can submit offers directly (there is no retail facility in these operations).

ANNEX A: LIST OF RESPONDENTS

AUSTRIA

BELGIUM

DENMARK

EUROPEAN COMMISSION

FINLAND

GERMANY

GREECE

IRELAND

ITALY

THE NETHERLANDS

PORTUGAL

SPAIN

SWEDEN

UNITED KINGDOM