Association of British Insurers

The Development of the Non-Gilt Sterling Bond Market

A Research Report
by Ruben Lee
Oxford Finance Group

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Foreword

The non-gilt sterling bond market has become increasingly important to insurance companies as the need to meet pension and other long-term liabilities has grown. Its significance has been highlighted in the recent debate over the Minimum Funding Requirement and the Myners Report. To us at the Association of British Insurers, it therefore seemed timely to commission this piece of research. Our members, who manage funds worth a total of some £1,100bn, have an interest in seeing it grow in scope and depth so that it provides attractive opportunities for us to invest in on behalf of our customers. In commissioning the research we aimed to uncover some useful pointers on how to improve the structure and functioning of the bond market. We also hoped to stimulate a more general debate about the market's future. This debate should inform our own agenda for action at the ABI and contribute to the development of the UK financial market place which is our industry's home.

Mary Francis

Mary Francis

Director General

The Development of the Non-Gilt Sterling Bond Market

The ABI Research Report Series publishes research which explores public policy and other issues relevant to the insurance industry. This report has been written by Dr Ruben Lee with the support of the ABI. However, the views expressed in this report are Dr Lee's and do not necessarily reflect those of the ABI or its member companies.

This is the first in a series of ABI Research Reports.

Contact details: Research@abi.org.uk
Rubenlee.ofg@btinternet.com

Association Of British Insurers
51 Gresham Street, London EC2V 7HQ
Tel: 020 7600 3333 Fax: 020 7696 8996

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Executive Summary

At the end of 2000, the amount of non-gilt sterling bonds outstanding was £219.4 billion, and by the end of 2001, it is anticipated that there will be more non-gilt sterling bonds than there are UK government bonds for the first time since the war. Most of these bonds have been purchased by UK life insurance companies and pension funds. The non-gilt sterling bond market has therefore become a critically important element of the UK's capital markets.

This report focuses on identifying and discussing some key factors which could encourage growth in the market. Four broad areas are analysed, concerning respectively: 1) issuers, their securities issues, and new issuance procedures; 2) trading; 3) regulation; and 4) investors. A range of topics in each of these areas is examined and a number of suggestions for how the structure of the market might be enhanced are put forward. While these are detailed in the conclusions, five are noted here.

Some investors appear to be paying for liquidity, possibly for regulatory reasons, without having a need for it. The appropriateness of investors' current trade-off between liquidity and returns, especially in the context of long-term liabilities, should be re-examined.

In some circumstances, it appears difficult to obtain sufficient information about a company's financial status to monitor the value of its sterling public debt. It is therefore suggested that the market consider whether bondholders should receive the same amount of information as equity holders, and if so how this should be enforced. This could be done either through the widespread adoption of appropriate covenants, or perhaps more appropriately by an exchange establishing and enforcing a listing category for issuers willing to guarantee ongoing disclosure.

Enhanced transparency of prices and quotes in the non-gilt sterling bond market is likely to lead to increased liquidity, greater competition between automated trading systems, and more efficient allocation of capital. Rather than attempt a radical change in the way the market operates, it is suggested that investors and issuers should support a pilot project to promote transparency of price and quote information in selected non-gilt fixed income securities.

There appears to be little to distinguish between the economic characteristics of many listed and unlisted non-gilt sterling bonds – either in terms of liquidity, or in terms of the information available about a security's issuer. It is therefore suggested that any regulatory distinction between listed and unlisted non-gilt sterling bonds should be re-examined.

There is currently no forum for promoting bondholders' interests in a coordinated manner. Many important issues facing bondholders are therefore either being ignored, or being responded to by single institutions which individually lack the authority that an industry-wide body could bring. It is therefore suggested that the establishment of a Bondholder Committee should be considered.

Acknowledgments

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1. Introduction

This report examines the development of the non-gilt sterling bond market. Its primary focus is to identify and discuss some key factors which could encourage growth in the market. A series of suggestions are therefore made for how the structure of the market might be improved. Although it is not intended here either to represent or to justify the views of the investors in the market, or indeed of any other particular market constituency, investors' opinions have been actively sought out and assessed in the preparation for the report. Given the brevity of the time available to write the report and the difficulties in obtaining accurate and relevant data, much of the evidence justifying the suggestions made here is anecdotal rather than numerical in nature[1].

A central theme that informs the suggestions made in the report arises from the fact that the most important element of the non-gilt sterling bond market is the Eurosterling market, which itself is a subset of the broader Eurobond market. It is believed, therefore, that much of the analysis presented here may be relevant for the wider Eurobond market, as well as for the non-gilt sterling bond market. Many of the suggestions made here also implicitly respond to the fact that the Eurobond market was born, and continues to thrive, as a trading arena where it is possible to minimise regulatory intervention. Most attempts to wrest regulatory jurisdiction over the Eurobond market have proved both unsuccessful and indeed counterproductive. In the suggestions made throughout the report, therefore, wherever possible a market rather than a regulatory solution is put forward to resolve problems that have been identified. While some of the suggestions may appear no more than common sense, others may be considered either more radical or more complex.

It is important to note several topics the report does not attempt to address. First, the report does not seek to predict which way the market will move, or how the supply of, or demand for, the various subsets of the non-gilt sterling bond market will change in the future. Although a summary of some broad trends affecting these issues is presented as background information, attention is focused throughout the report on the structure of the market, rather than on its performance. Second, the topics that have been discussed at length in the Myners Report are not revisited here, apart from where it is believed that further comment is especially merited. Finally, the report is not intended as an analysis of how British companies, small or large, can finance themselves in the sterling debt markets.

The report is composed of six sections in addition to the introduction, and five appendices. In section two, a very brief background to the non-gilt sterling bond market is provided, including an overview of its structure and a listing of some broad trends affecting the flow of funds in the market. In the third section, a range of topics concerning issuers, their issues, and the new issuance process, is analysed. In section four, some topics concerning trading are discussed. In the fifth section, comments on three regulatory issues are provided. In section six, some elements of the activities of investors are examined. Conclusions, including the suggestions for how the market might be improved, are provided in the last section. Appendix 1 contains the notes to the text. The acronyms used in the report are recorded in Appendix 2. Appendix 3 contains the names of the people who were interviewed at length for the report, and who did not wish to remain anonymous. Finally, full details of the references mentioned in the report are provided in Appendix 4.

2. Background

A very brief background to the non-gilt sterling bond market is presented in this section. The structure of the market is outlined first of all, and some broad trends affecting the flow of funds in the market are then listed.

2.1. Overview of Market Structure

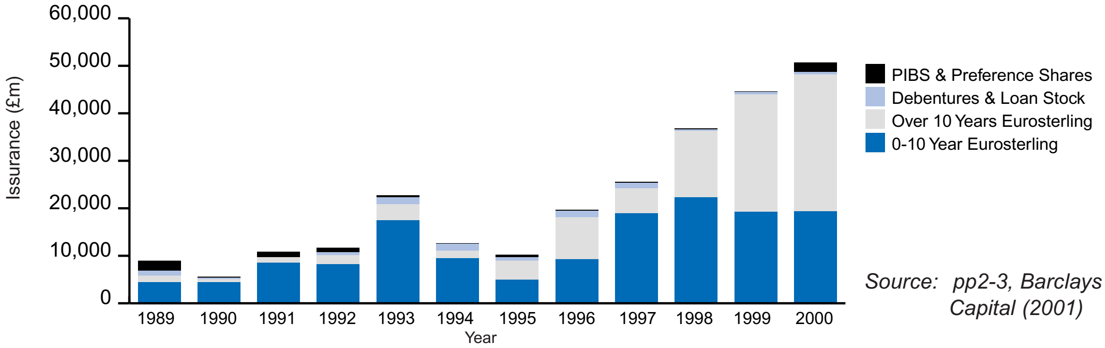
Two facts illustrate clearly the growing importance of the non-gilt sterling bond market: in 2000 the European Investment Bank (EIB) issued more eurosterling debt than did the UK Debt Management

Office (DMO)[2]; and, in the near future there are likely to be more non-gilt fixed income securities outstanding than gilts for the first time in post-war history[3]. As of the end of 2000, the amount of non-gilt sterling securities outstanding was £219.4 billion[4].

The market has historically been composed of five major types of issues: Eurosterling bonds, Debentures and Loan stocks, Bulldog bonds, Permanent Interest Bearing Shares (PIBS), and preference shares[5]. A Eurosterling bond is a eurobond issued in sterling[6]. The term eurobond is now generally used to refer simply to a bond issued and bought internationally in Europe. A debenture is a fixed interest bond secured against assets provided by an issuer. A Bulldog bond is a bond issued by a non-UK organisation in the UK market, which is listed on the London Stock Exchange (LSE). PIBS are undated fixed interest paying shares issued by building societies. Preference shares are a senior class of preferred stock. Besides the standard form of Eurosterling bonds (typically issued at a fixed rate by a single organisation), a range of other more specialised types of securities have also been issued in the Eurosterling sector. These include securitisations, in which issues are backed by a range of assets[7], index-linked securities[8], and high yield securities[9].

Data for issuance of the major types of bonds are presented in Figure 1. The rate of growth of total issuance in the non-gilt sterling market has been high. In 1995, the issuance was £10.2 billion, and this grew by over five times to £50.7 billion in 2000.

Figure 1 Issuance in the Non-Gilt Sterling Bond Market: 1989-2000

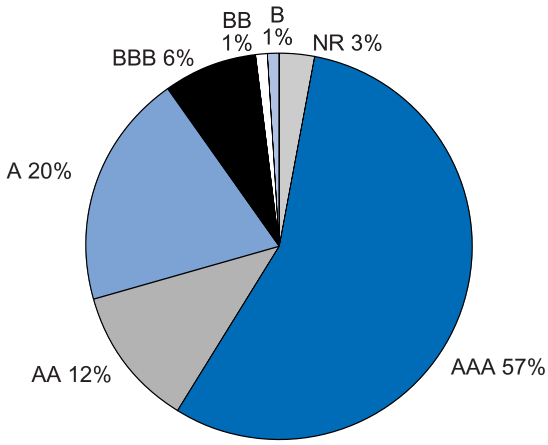


Source: pp2-3, Barclays Capital (2001)

Over recent years, the issuance of Eurosterling bonds has become by far the most significant element of the non-gilt sterling bond market. In 2000, of the total issuance of £50.7 billion, 95% was in Eurosterling issues. This issuance may be categorised in several ways.

Figure 2

Non-Gilt Issuance 2000: Split by Ratings

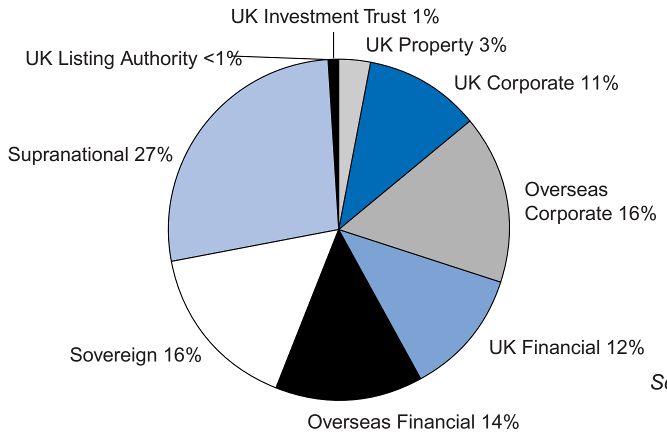


Source: p24, Barclays Capital (2001)

Figure 2 shows the distribution of new issuance by rating. The market is dominated by the AAA-rated sector which comprised 57% of total issuance, followed by the A-rated sector which comprised 20% of total issuance.

Figure 3

Non-Gilt Issuance 2000: Split by Issuer

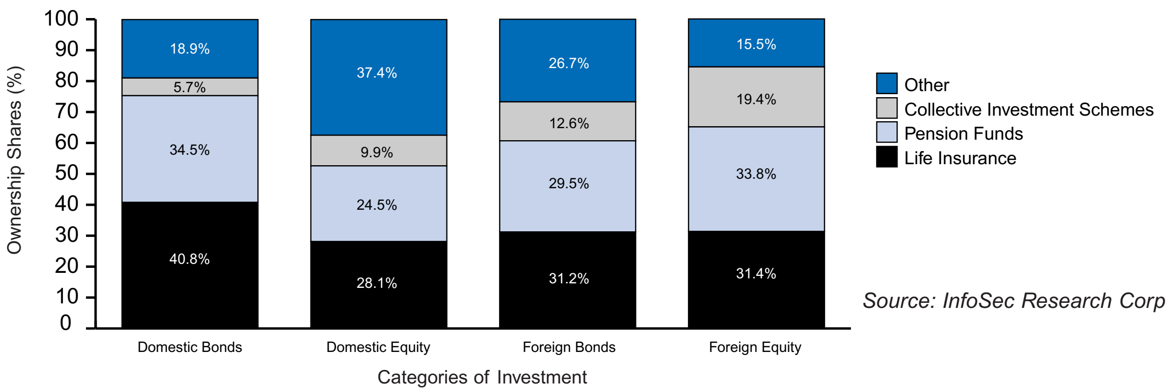


Source: p24, Barclays Capital (2001)

Figure 3 shows the distribution of issuance by type of issuer. The largest category of issuers were the supranational organisations with 27% of total new issuance, followed by the sovereign and overseas corporate sectors, each with 16% of the market. The corporate issuers include, amongst others, utilities, finance companies, construction companies, telephone companies, and companies in the property sector. A large part of the recent issuance has been for longer-dated securities. In 2000, for example, 49.2% of the total new issuance had a maturity longer than 15 years[10].

Data about the ownership by UK entities, at year-end 1999, of the major categories of investments are presented in Figure 4.

Figure 4 Ownership of Major Categories of Investment: Year-end 1999



Source: InfoSec Research Corp

The data are ambiguous as it is not clear whether the distinction between domestic bonds and foreign bonds is between bonds issued by UK institutions and foreign institutions, or between bonds issued in sterling and bonds issued in currencies other than sterling[11]. Nevertheless, it is evident that however the distinction is made, the major investors in the non-gilt sterling market are life insurance companies and pension funds. Of all the domestic bonds owned in the UK, valued at £319 billion at year-end 1999, life insurance companies owned 40.8% and pension funds owned 34.5%, and of all the foreign bonds owned in the UK, valued at £103.6 billion, life insurance companies owned 31.2% and pension funds owned 29.4%. The next largest group of purchasers were collective investment schemes who owned 5.7% and 12.6% respectively of the domestic and foreign bonds.

2.2. Broad Trends Affecting the Flow of Funds

This section outlines some broad trends, many of which are closely related, that have been affecting the flow of funds in the non-gilt sterling bond market.

Reduction in the Supply of Gilts

As a result of the reduction in government funding requirements, the supply of gilts in the primary market has been diminishing. This appears to have been one of the contributory factors towards the existence of an inverse yield curve in the gilts market. New issuance in the non-gilt sector, by sovereigns, international agencies, and corporate issuers, has been bought by investors partly in response to the lack of gilt securities, not least because the yields offered by these issuers are at a premium to gilts, and, for the highest quality issuers, no extra credit risk needs to be incurred. Even though large surpluses have been present in the government's finances over the past few years, the current lack of supply in the gilts market is likely to be reversed at some time over the next years when the government starts issuing again[12].

Increased Demand by Insurance Companies and Pension Funds

A range of factors have led to increased demand by both insurers and pension funds for non-gilt sterling bonds. One key factor has been the growing maturity of pension funds. A scheme starts maturing when its members stop being active in the work force and start retiring. As they do so, pension funds typically reallocate their assets towards fixed income securities in order to match their increasingly short-term and predictable liabilities. Several regulatory factors have also encouraged the purchase of non-gilt sterling bonds by pension funds, including the establishment of the soon-to-disappear Minimum Funding Requirement (MFR) and of accounting standard FRS 17[13].

Limited Demand outside the UK, in part due to the Currency

Demand by non-UK institutions for Eurosterling issues has been limited for various reasons. Although many investors have become convinced by the stability of the currency, some still remember the long period in which inflation in the UK was not kept under control, thereby making fixed income assets undesirable, both because of the reduction in the real value of bonds, and because of repeated devaluations in sterling. There is also a concern that the level of sterling is too high on a long-term sustainable basis. If sterling goes into the Euro, there may be a convergence between UK gilt yields and those of other European government securities markets. Given the relative expensiveness of the gilt market, it may therefore become cheaper compared to its European counterparts.

Another reason for the lack of interest on the part of non-UK institutions for non-gilt sterling bonds is the slow development of the European pension fund industry. This has meant that there is typically a maximum investment maturity of 5-10 years which investors on continental Europe are willing to buy, whereas many Eurosterling bonds have longer maturities. European investors have also to date been less willing to purchase securitised paper. In addition, the development of the Euro bond market has meant that there is less need to focus on the sterling market, which is progressively being considered a relatively minor and limited market.

Swap Market

The acceleration of issuance of Eurosterling issues over the last few years has been possible in large part due to swap-related transactions, given the extensive currency and interest-rate swap markets. Some of the major Eurosterling borrowers look to raise finance at fixed spreads versus LIBOR. The strong demand for fixed rate sterling-bonds has allowed them to issue in this market, and then swap the fixed liabilities into floating rate debt.

Disintermediation of the Banking Sector

The proportion of corporate debt that is financed through direct bank intermediation versus the amount that is financed in the public markets appears to be greater in the UK than in the US, and greater again in continental Europe than in the UK. To the extent that it is cheaper to raise finance in the public markets, and as a result of consolidation in the banking sector which may be reducing the liquidity available for direct intermediation, the amount of public debt being issued is likely to grow. This is affecting both the Eurosterling and the Euro bond markets.

Changes in Credit Ratings

Companies throughout Europe are becoming more concerned with returns to capital, and more sophisticated in their use of the debt markets. The value of having a high rating in terms of raising capital more cheaply is now being weighed against the value of leveraging a company in order to enhance rates of return. In the US, companies appear to have made more efficient use of their capital, and this is putting pressure on similar UK and European companies. There has thus been, and is likely to continue to be, a steady decline in the average rating of issuing companies down to BBB (the lowest investment grade rating). Below this level, rates of financing start increasing dramatically.

If an economic downturn occurs, credit spreads may widen to reflect increased probabilities of default[14]. National corporate bond markets may also be becoming more closely related than before, because of global issuance of the same credits, because of increased cross-currency valuation, and because national economic cycles may be becoming more synchronous.

Taxation

As noted by Robinson, the changes in the corporation tax regime made in 4/1999 provide an incentive for UK companies to issue more debt:

> Bond finance has always enjoyed a tax advantage over equity finance, because the profits from which dividends are paid bear corporation tax, whereas interest payments escape the tax. The tax advantage has been greatly strengthened by the abolition of the tax credit on dividends paid to pension funds. Before the reform the tax exempt institutions, who hold around half of all UK equity, faced an effective 13 per cent tax penalty on dividends. Now there is a 30 per cent penalty. So equity finance has become significantly more expensive relative to debt finance, strengthening the tax reasons why companies should borrow more[15].

3. Issuers, Issues, and New Issuance

Three topics relating to issuers, their securities issues, and new issuance procedures, are examined in this section. They concern, respectively, underwriting, disclosure, and covenants.

3.1. Underwriting

The primary market for non-gilt sterling bond securities is dominated by a few large investment banks. Tables 1 and 2 show respectively the market shares of the largest book-runners for the five-year period from 1996-2000, and for the year 2000.

Table 1

Market Shares of Bookrunners for Sterling Non-Gilt Debt, all International Sterling Bonds: 1996-2000

	Bookrunner	No of tranches	Total (m)	Share (%)
1	Barclays	319	42,295.25	17.5
2	UBS Warburg	301	36,569.91	15.1
3	HSBC	194	25,063.72	10.4
4	JP Morgan	128	16,597.01	6.9
5	RBS/NatWest	99	14,795.06	6.1
6	Morgan Stanley DW	136	14,145.53	5.8
7	Merrill Lynch	121	13,377.27	5.5
8	Deutsche Bank	116	12,317.55	5.1
9	Goldman Sachs	103	12,181.35	5.0
10	SSSB	86	11,407.19	4.7
	Total	1,724	242,091.95	

Source: IFR/Thomson Financial

Table 2

Market Shares of Bookrunners for Sterling Non-Gilt Debt, Eurobonds: 2000

	Bookrunner	No of Issues	Total £(m)	Share (%)
1	Barclays Capital	110	11,722.26	15.89
2	UBS Warburg	84	10,027.29	13.66
3	Morgan Stanley DW	74	6,816.16	9.24
4	HSBC	57	6,157.36	8.76
5	Goldman Sachs	62	6,369.50	8.64
6	Deutsche Bank	49	6,094.28	8.26
7	SSSB	41	5,096.11	6.91
8	JP Morgan	33	5,029.52	6.82
9	Merrill Lynch	35	4,077.21	5.53
10	Dresdner KB	25	2,956.55	4.01
	Total	594	73,754.08	

Excluding equity-related issues

Source: IFR/Thomson Financial

The top three firms obtained 43.0% over the past five years cumulatively, and 38.8% in 2000. Although figures from the individual years were not available, the identities of the top ten firms seem to have changed relatively little over this time. Nevertheless, there is intense competition in the primary market between investment banks to obtain new issue mandates, and the possibility of issuers switching between investment banks in their choice of lead manager for debt issues is relatively simple and cheap.

Mandates appear to be awarded to investment banks on the basis of their reputations, brands, past performance in the primary market, perceived performance in the secondary market, and on their research capabilities. There seems, however, to be little competition between underwriters on the basis of the fees they charge. Underwriting fees appear to be fairly standardised, and indeed there is an industry-wide consensus, reproduced in some investment banks' marketing literature, as to what these figures are. There are a few instances, however, when banks agree to new deals at lower fees than the industry standards.

It is important to understand the nature of what investment banks do in the primary market, and what they are paid for. Although when they participate in a new deal investment banks receive so-called "underwriting" fees, in practice the amount of underwriting actually undertaken is normally limited, as many deals are pre-subscribed for up to 70% or more of their total size. The amount of capital dealers are asked to put at risk is therefore relatively low. There are also a number of deals which are instigated as a result of so-called "reverse enquiry", in which investors notify their interest in buying paper from a specified issuer either to the issuer itself, or through an investment bank. The investment bank may then receive an introduction fee from the issuer for facilitating the transaction. Bonds are thus issued in direct response to demand.

Some large issuers seek to ensure specifically that dealers do not underwrite too much of their deals, as they are worried that if there is an overhang of paper in the secondary market, it will depress the price not only of the issue in question, but also of all their other outstanding debt. Such issuers also typically do not want an investment bank to buy a large block of their securities in order to speculate on the market. They therefore prefer that lead managers "build a book" of customer orders for their new issues, and often will agree to an issue only once a significant proportion of a deal has been pre-sold. Sometimes, rather than paying a traditional underwriting fee, an issuer may seek to pay investment banks a re-offer fee, which is lower than the standard underwriting fee. It is important to stress that for many borrowers, the up-front underwriting fee they are required to pay is normally marginal compared to the savings obtainable by issuing securities in the capital markets, as opposed to using alternative funding mechanisms, such as direct bank finance.

A second activity that investment banks undertake in the primary market is that of distributing or selling new issues to end investors. Unlike in the past, the identification of investors interested in the non-gilt fixed income market is now easy - all the major banks know all the major investors. Furthermore, and as discussed below in section 5.1, there are relatively few major investors in the sterling fixed-income bond market. In the case of reverse inquiry, no distribution at all is required. New technology, including both the internet and Bloomberg, mean that the dissemination of information to customers about new issues is cheap. By itself, therefore, distribution is a relatively low value-added service.

A third activity that investment banks undertake in order to obtain mandates in the primary market is the provision of liquidity in the secondary market. As discussed below in section 4.1, the extent to which the non-gilt sterling bond market is liquid is debatable. Different issuers also have different views about the value of secondary market liquidity. Most corporate issuers issue bonds for a business-specific reason, and therefore do not have an on-going regular need for debt capital. Some of these issuers appear to have less concern for liquidity than more frequent borrowers. Even some big issuers, which accept that liquidity in the secondary market is theoretically important for them, note in practice that their issues do not appear to trade very often[16]. Sometimes issuers press lead managers to include a sufficient number of co-lead managers in their deals, and to allocate these co-lead managers a sufficient number of bonds, in order to increase the provision of liquidity in the secondary market. Some lead managers, however, question the value a syndicate group adds to liquidity in the secondary market.

The final service that investment banks provide to attract new issue mandates is research and analysis. The value that investors place on such research is discussed below in section 6.2.

The key aim here is to describe what investment banks do for issuers in the primary market, in terms of underwriting, distribution, liquidity and research. It is suggested that companies issuing non-gilt sterling bonds should examine the value they place on these activities, and seek to negotiate fees commensurate with this value.

3.2. Disclosure

Two aspects of disclosure are examined here. The first is relevant for the primary market. Investors are sometimes not given enough time to read the relevant information about a new issue before having to make an investment decision, given the pressure to invest quickly in new issues. In some circumstances, deals are brought to the market without full documentation, or sufficient information being presented in a prior "road-show". Notwithstanding the exigencies of bringing deals to the market, it is suggested here that investors should seek to persuade issuers and their investment banks that a lack of relevant information about a deal will impede the deal's success.

The second aspect of disclosure analysed here concerns investors' ongoing needs for information from an issuer, once its securities are trading in the secondary market. Given the pressing need for many issuers to enhance their rates of return, it has become relatively common for publicly-listed companies with listed non-gilt sterling bonds to be taken private: this occurred with 44 public companies last year, which were taken private with almost £9 billion worth of debt[17]. Many investors complain, however, that once a company is taken private, namely when its equity is de-listed from an exchange, it is not possible to obtain sufficient information about the company's financial status to monitor the value and performance of its debt. Annual returns submitted to Companies House are a poor and slow source of such information.

There are several responses to this issue. The first is to do nothing. This is likely to lead to wider spreads generally for non-gilt fixed income securities, and specifically for those sectors/companies where the possibility of a de-listing is high. A second response is to seek to price the value of this information into each security by negotiating an appropriate covenant, as discussed in the next section. A tiering in spreads would then be likely to arise between appropriately covenant-protected issues, which guaranteed continued information disclosure, and those issues for which no such guarantee was present.

A third response is to argue that the flow of information to a bondholder should be a natural right, rather than a negotiated covenant. This right could be enforced in several ways. Bondholders could look to the exchange or listing authority under which the relevant fixed-income security is listed. The situation for Eurosterling bonds listed in the UK is complicated by the fact that the United Kingdom Listing Authority (UKLA) recently separated from the LSE. As a Recognised Investment Exchange, the LSE has an obligation to maintain fair and orderly markets. The continuing requirements the LSE imposes on issuers of debt securities, which are admitted for trading on the exchange, state that:

> the issuer must notify the Company Announcements Office [of the LSE] without delay of any major new developments in its sphere of activity which are not public knowledge and which may:
>
> (a) by virtue of their effect on its assets and liabilities or financial position or on the general course of its business, lead to substantial movements in the price of the securities; or

> (b) in the case of debt securities only, significantly affect its ability to meet its commitments[18].

The continuing requirements the UKLA imposes on issuers of listed debt securities mirror those of the LSE, with an additional exemption that:

> if the issuer considers that disclosure to the public of information required by this paragraph [the same as above] to be notified to the Company Announcements Office might prejudice the issuer's legitimate interests, the UK Listing Authority may grant a dispensation from the requirement[19].

It may thus already be the case that, if a company's debt is admitted for trading to the LSE and/or listed with the UKLA, both these regulators have sufficient power to ensure that the company discloses adequate information on an ongoing basis for investors to value the debt appropriately. This power is independent of whether the company's equity is listed or not. If the exchange, however, believes that it does not have enough power to force companies with listed debt to provide sufficient ongoing disclosure, it could establish a special category for debt admitted for trading on the exchange for which such ongoing disclosure would be guaranteed. This would have a similar effect to the covenant-protected regime. A tiering in spreads would be likely to arise between that class of listed fixed-income issues for which continued information disclosure was guaranteed, and those listed issues for which no such guarantee was present.

A final response to the problem of there being insufficient information for investors to monitor their investments in the non-gilt sterling bond market could be to demand, as some market participants do, a generalised regulatory or legislative requirement that adequate information be passed by a company to its bondholders. Given the possibility of competition between European jurisdictions, some market participants even suggest requiring that standardised disclosure obligations be imposed across Europe, otherwise issuers would gravitate to the jurisdictions where disclosure was the lightest.

It is not suggested here that the market consider supporting a national legislative regime in which appropriate ongoing information disclosure requirements be mandated by regulation. This may merely provide an incentive for issuers to list elsewhere. The European response is also viewed as unnecessarily rigid, and will have all the standard problems of seeking to implement European legislation[20]. Instead, either the covenant-protected approach should be employed, or perhaps more appropriately the exchange should consider establishing and enforcing a particular listing category for issuers willing to provide appropriate ongoing disclosure. The exchange may be able to enforce such disclosure more easily than could a disparate group of bondholders seeking to enforce their covenants through the courts.

3.3. Covenants

A covenant is a “provision within a borrowing agreement that the borrower will take certain actions or refrain from taking certain actions in order to safeguard the interests of the lender"[21]. The main reason for having covenants is that the interests of bondholders are not the same as those of shareholders: "in general, shareholders want lean balance sheets and rapid earnings growth, whereas bondholders want stability and conservatism"[22]. Many different types of event have occurred over the past few years in which attempts have been made to divert returns from bondholders to shareholders. An analysis of these different situations, and the manner in which covenants have or have not afforded protection against them, is not presented here. Instead, several general points concerning covenants are noted.

There is a range of reasons why bond covenants are generally less restrictive than those on bank loans. One critically important factor is that bondholders together form "a fragmented body that lacks the unified negotiating power of commercial banks"[23]. There are, however, also costs in seeking to impose strict covenants on issuers. It may encourage issuers to move to jurisdictions where they can issue securities with less-constraining covenants - some organisations issue in the eurozone for this reason. Covenants may also be risky for issuing companies, and thereby indirectly for investors. In some contexts, very strong covenant protection may heighten the risk of default because it reduces financial flexibility. The optimal covenant design is not examined here. What is suggested, however, is that bondholders should act collectively to negotiate appropriate covenants, as by doing so they will be able to achieve tighter covenants than if they acted separately.

Given the importance of covenants for investor protection, the speed with which new issues come to the market, and the difficulty of assessing such new issues rapidly, it is suggested that an industry-wide standardised set of covenants be prepared to facilitate bondholders' investment decisions, accepting that it will need to be updated on a regular basis.

Although many covenants may appear attractive in theory, in practice companies may sometimes be able to evade their intent, as the relevant wording in the covenants may be ambiguous, and it is normally impossible to specify in full and in advance all the relevant circumstances when the issuer would be required to do something as per the spirit, as opposed to the letter, of a covenant[24]. It is not intended here to argue either that the balance between shareholder rights and bondholder rights is currently unfair or inefficient, or that the substantial corporate restructuring, and attendant increase in leverage, taking place throughout Europe is leading to macroeconomic inefficiencies, or that shareholders should not seek to exploit their rights as much as they can in order to maximise their profits. It is stressed, however, that the essence of bondholders' rights are different from those of shareholders' rights, and that they should be priced accordingly. If what appeared historically to be a set of bondholders' rights can now no longer be taken for granted as a result of legal uncertainty with regards covenants, bondholders will systematically look for higher yields to protect themselves. This will raise new issue yields in general, and may stop some issuers from using the bond market. It is therefore suggested that where possible legal certainty concerning the nature of bond covenants should be obtained.

4. Trading

Four topics relating to trading in the non-gilt sterling bond market are examined in this section: liquidity, indices, the automation of the trading process, and price and quote transparency.

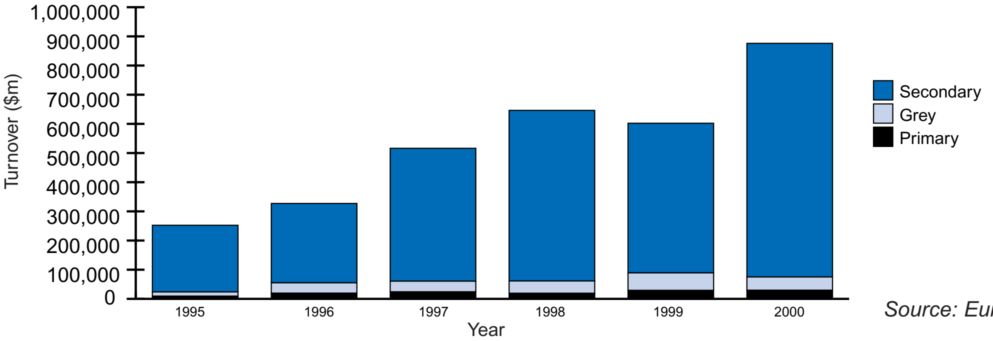
4.1. Liquidity

The notion of liquidity in a market is complex, and often controversial. A liquid market may be defined as one in which it is possible to buy or sell an asset at or within a reasonable bid-ask spread, in reasonable size, without having too much market impact, and at reasonable speed - or in the language of economists to have a market which is narrow, deep, resilient, and exhibits immediacy. The concept of liquidity is closely linked to that of price discovery - the manner and effectiveness by which the prices in a market reflect all relevant information. Without liquidity and good price discovery, markets do not perform well: it is difficult to buy or sell assets, prices are not thought to be fair, the allocation of resources to the most productive opportunities is obstructed, and all the many informational uses of prices are impeded.

Measuring the liquidity and the efficiency of a price discovery process in a market is difficult both conceptually and empirically, not least because it is often hard to obtain relevant data. The non-gilt sterling bond market is no exception. Accurate data on bid-ask spreads, and on the prices and volumes of individual trades are extremely hard to find. One proxy for liquidity is the rate of turnover of the securities in a market, namely the ratio between the amount traded and the amount issued in the market over a specified period of time. It is, however, also difficult to obtain aggregate data on market turnover for the non-gilt sterling bond market.

No empirical analysis of the liquidity available in the non-gilt sterling bond market is undertaken here. It is nevertheless useful to note the data on turnover that are available. The information about trading available from Euroclear is presented in Figure 5.

Figure 5 Annual Turnover in Eurosterling Bonds in Euroclear ($ equivalent)

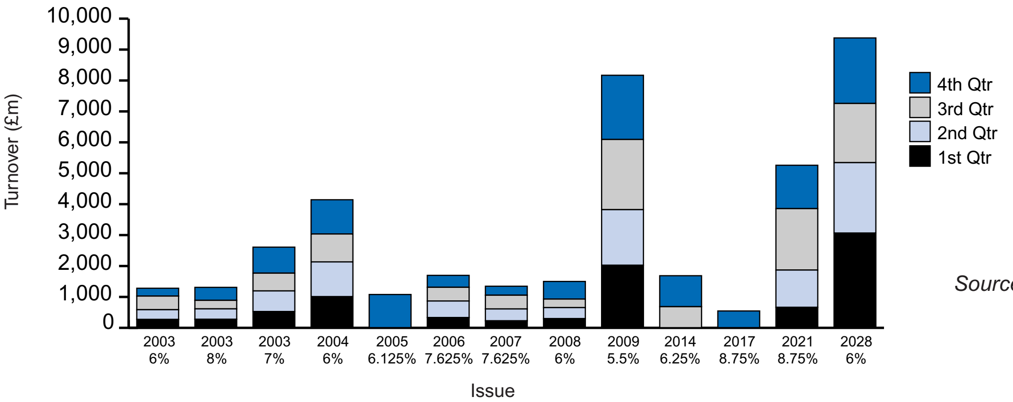


Source: Euroclear

This shows the aggregate dollar equivalent of the Sterling turnover of Eurosterling Bonds traded for each of the years 1995-2000 in the grey market, the primary market, and the secondary market, and settled through Euroclear. Trades in the grey market are defined as those for which the trade date is before the closing date, trades in the primary market are those for which the trade date is the same as the closing date, and trades in the secondary market are those for which the trade date is later than the closing date. These figures do not, however, show clearly the amount of trading in the secondary market, as they include repurchase activity which therefore inflates the figures. Clearstream (previously called CEDEL) stopped publishing trading data at the end of 1999. Prior to this the proportional split in secondary market turnover, ignoring any distortions such as those arising from the inclusion of repurchase agreements, is reported as 78%:22%. Given the vital importance of measuring liquidity, it is suggested that market participants work with the two major Eurobond settlement organisations to see how to produce accurate and timely turnover data.

The most accurate data on turnover come from one issuer in the market, the EIB. The EIB has instituted a program of reporting dealers who are required to report their turnover to the EIB. Quarterly turnover data for its largest issues in 2000, as executed by its reporting dealers, are presented in Figure 6.

Figure 6 Turnover in EIB Benchmark Issues Amongst Dealers: 2000



Source: EIB

Informally, the EIB has reported that in 2000, there was a turnover of approximately £41 billion in both the primary and secondary markets, with new issuance of £9 billion, to give a secondary market turnover of £31 billion. There was approximately £20 billion average outstanding of the benchmark EIB issues in 2000, to give a turnover ratio of about 1.5.

Notwithstanding the fact that it is always the case that liquidity in a market can be improved, there is a general perception that the non-gilt sterling bond market is relatively illiquid, and that its price discovery mechanism is not always good. This is evidenced in various ways. Investors find it hard to purchase sizable blocks of securities in the secondary market. Many older issues appear too small to obtain good liquidity. Even for newer issues, liquidity seems to start disappearing after a few months. It is hard to know what is a genuine price in the market. Some issuers remark that the pricing of their debt versus standard government benchmarks stays absolutely constant for long periods of time. They infer that this is because dealers are simply pricing these bonds at a fixed spread against the benchmark, and not trading them at all. The extent to which the quoted prices reveal true prices at which deals can be conducted is therefore questioned.

There are several important determinants of the liquidity in a market. The first is the nature of the issues being traded, and in particular their size, and the extent to which they are seen as fungible with other issues. Some large benchmark securities have been issued in the Eurosterling market with nominal amounts of £1 billion or more. A small number of issuers are prepared to exploit the advantage of having large issues by issuing taps (additional amounts of securities beyond the volume initially issued in the primary market) to previously issued securities on a flexible basis. In general it is reported that any issue of less then £150-200 million pounds may not be that liquid.

A second set of determinants of liquidity arise from the manner in which orders are executed in a market. The model on which trading in the Eurosterling market is supposed to be based is one in which dealers make markets, and compete with each other according to who makes the best price to deal in a specified amount of securities at a specified time. For a limited number of the most liquid securities, such as some of those issued by the EIB and other high-grade issuers, the market does work in this way. The EIB has sought to build liquidity for its securities by following the example of the DMO in the gilts market. Each member of the group of reporting dealers the EIB has established is required to make markets in specified EIB issues, with maximum spreads and minimum volumes. Accurate data on the general market shares of dealers in secondary market turnover are unavailable, except again from the EIB's reporting dealers in the major EIB issues. Annual data for 2000, presented in Table 3, show that of the nine reporting dealers in these issues, the top dealer did 23% of the business, and the top three did 53% of the business in aggregate. Information about trades not executed via a market maker is not included in the data in Table 3.

Table 3

Market Makers' Shares of Trading in EIB Benchmark Issues: 2000

	Purchase plus Sales	
Bank*	Total (£ billion)	Share of Turnover (%)
1	9.0	23%
2	6.7	17%
3	5.1	13%
4	5.0	13%
5	4.5	11%
6	2.8	7%
7	2.4	6%
8	2.4	6%
9	2.1	5%
Total	40.0	100%

Names are kept anonymous
Source: EIB

In practice, for most securities, and even for trades of large size in some of the most liquid securities, most trades are not executed by calling up a market maker and asking him to quote a bid and an ask price. Instead, investors tend to be open with what they want to do with the dealers, and also vice versa. In order to trade, an investor will typically leave an order indicating his willingness to purchase or sell a specified amount of securities at a specified price, and allow the dealer to work on it. Many dealers also frequently send details of all their positions, except for the most "strategic" ones, to the major investors with whom they have a good relationship. This is done on the basis that the investor will not reveal these positions to the market.

The move from a market-making market to one that appears to be primarily order-driven started a few years ago when dealers began to run significantly lower inventories than before for several reasons. First, following the Russian and Long-Term Capital Management (LTCM) crises, dealers lost significant amounts of money, and became more risk averse. Second, their risk-management systems have become more sophisticated, allowing them to monitor and control the risks of their positions more closely than before. As a result, many dealers decided to reduce their exposure to market and spread risks. Finally, dealers have appreciated that other sources of income, including most importantly fees from primary market activity and commissions from equity trading, can allow them to earn more profits without putting their own capital at risk. They have therefore focused their attention on these activities. Whereas previously dealers were happy to commit themselves to making two-way prices at all times, now dealers are typically only willing to commit their capital to the same extent that their competitors do so. As the size of the market is expanding, it appears therefore that the capital committed to the market by dealers is shrinking.

Other factors also affect the extent to which dealers are willing to make markets in a particular security. Typically dealing firms are happier to act as a market maker for a security for which they have participated in the primary market, and especially in its lead management group. The ease and cost of shorting securities also influences dealers' willingness to make markets. There are different opinions about the importance of this factor. Some market participants argue that there is little shorting in the market, because it is difficult and expensive for a trader to find and borrow any bonds he has shorted. This seems to occur for several reasons. Many investors do not wish to lend their non-gilt sterling bonds. Of those investors that do wish to lend securities, some have long-term strategic relationships with particular investment banks, which means that they will lend their securities only to these specified investment banks, but not to other counterparties. Finally, the costs of borrowing securities are also said to be expensive. In contrast, some of the large investment funds note that they are willing to lend out their non-gilt sterling debt securities, but that dealers show little demand to borrow them.

A third key determinant of the liquidity, or rather the lack of it, in the secondary non-gilt sterling bond market is the behaviour of investors. A range of aspects of investor behaviour contribute towards the lack of liquidity. First, both insurance companies and pension funds have various types of long-term liabilities, and once they purchase securities to set against these liabilities, they frequently never trade these securities again. A "buy and hold" policy is essentially followed. The less willing investors are to trade their portfolios, the less willing will dealers be to make active markets, given the difficulty of unwinding the other side of any trades that they, the dealers, undertake. Second, there are few investors who are interested in anomaly trading, namely in constantly monitoring and arbitraging between those securities which appear cheap in the market and those which appear expensive. Third, investors are frequently not willing to buy big blocks of securities in the secondary market. They rely on the primary market to obtain such liquidity, as they say they are able to sell those securities they do not want in the secondary market, only in return for buying new issue securities.

It is self-evident, but important to note, that different institutions have different needs for liquidity. Those institutions with long or relatively predictable liabilities, such as pension funds and insurance companies running life funds, need relatively little liquidity. Institutions which have shorter or more unpredictable liabilities, such as unit trusts or general insurance funds, have more need for liquidity. Despite this, however, those institutions with long and relatively predictable liabilities appear to have been the major purchasers of non-gilt sterling bonds as opposed to other less liquid assets, such as private placements. Some investors therefore appear to be paying for liquidity, possible for regulatory reasons, without having a need for it. It is suggested here that the appropriateness of investors' current trade-off between liquidity and returns, especially in the context of long-term liabilities, should be re-examined.

4.2. Indices

The use of indices is critical to many types of market participants in most markets, including the non-gilt sterling bond market. Indices currently play a central role in the evaluation of investment management performance[25], they are used as the basis for "passive" investment strategies in which fund managers seek to mimic the performance of a specified benchmark, they are used for regulatory reasons – for example to discount liabilities in the pensions industry, their use can publicise the performance and merits of a market, and they may lead to trading in index-related derivative products. Given these varied uses, it is unsurprising that different types of index may be appropriate in different contexts.

Many factors may determine the attractiveness of an index created for the non-gilt sterling bond market[26]:

1) The nature, number, credit ratings, and capitalisation of bonds included in the index.

2) The manner in which the securities underlying the index are priced. If an index is priced by an individual firm, its prices may be questioned for several reasons. First, by construction, the prices on which the index is based will not be representative of the whole market. Second, the value of the index is likely to reflect the positions the dealer has. Dealers price securities so as to induce trades on the other side of the market. A trader who is long a security will normally mark down its price, and vice versa. Finally, if an index is based on prices submitted by a single dealer, it may be more open to manipulation than if it is based on prices coming from multiple sources.

3) The liquidity of the bonds in the index. If an index contains illiquid items, investors may find it difficult to mimic the performance of the index as a benchmark. Conversely, if an index only has liquid bonds, its performance may not adequately represent the performance of the whole market.

4) The speed with which the index reflects the entry and performance of new issues in the market.

5) The extent to which there are caps on certain credits in the index. Greater representation in an index is generally granted to issuers issuing larger amounts of securities. Sometimes, however, the issuance of more debt is an indication of credit weakness, and market participants may wish, or be obliged for regulatory reasons, to limit their exposure to specific credits.

6) The historical longevity of the index. In order to analyse the tracking error of a portfolio, as a measure of how much risk the portfolio is taking versus a benchmark, access to some historical data is necessary.

7) The manner in which the index treats the reinvestment of coupon flows.

8) The extent to which the rules governing the index are adhered to strictly.

9) The manner in which the index is adapted to reflect structural changes in the underlying market. For example, some investors may wish to have an index for the sterling bond market that reflects the growing industrial diversification in the market.

10) The user-friendliness, delivery mechanism, and systems support, for the index. For example, if an index is freely available on the internet, or via Bloomberg, market participants who are not clients of the index provider, such as consultants, can monitor the portfolio strategies pursued by investors who use the index, and analyse their credit and sector exposure.

11) The average maturity/duration of bonds within the index. Investors may prefer to use indices with maturities that match their liabilities.

12) The extent to which other market participants use the index. If institutions wish to compare their performance against that of their peers, they may prefer to use popular indices.

That indices are used by so many participants in the market makes their creation and management a highly valuable, and competitive, activity. A firm producing an index may gain publicity, client contact, and sometimes direct revenues if the index becomes widely disseminated and used for related market activity. Indices are, of course, also costly to establish and maintain.

There appear to be eight investment banks which currently each provide their own set of indices for the non-gilt sterling market. Competition between these firms is intense. Each of their indices is, for the most part, priced by the firm which produces it, with the attendant problems noted above[27]. In response, a group of investment banks, including some of those which currently provide their own indices, is seeking to create a new set of relevant indices with several advantages over the current offerings[28]. This is being done via the so-called iBoxx project in partnership with Deutsche Börse[29]. The aim is to provide real-time, multi-price contributor, third party-supplied indices as opposed to the end-of-day, single-price contributor, conflicted-supplier, indices on offer at present. The banks will contribute their bid and ask prices on a real time basis, and then Deutsche Börse will calculate the indices, and disseminate them to the financial community also in real time. It is hoped that the pricing anomalies arising from having only a single supplier of prices should be eliminated.

The intended merits of the proposed iBoxx non-gilt sterling bond market indices are all likely to be attractive to many market participants, and indeed may be so attractive that all participants start to use the indices if, and when, they become operational. However, the competition operating between all the already-existing indices, has meant that current providers are keen to improve their services and products for market participants, and this is having substantial and beneficial effects.

Futures Contract

One way of developing a futures contract is to base it on an appropriate index. Any index created for a futures contract in the non-gilt sterling bond market is likely to require a very different structure from one that aims to represent the whole market, or one against which market participants might be willing to evaluate their performance. In particular, it is essential that, for an index on which a futures contract is based, the index is not easily manipulable. The constituents of the index must thus be very liquid, not vulnerable to a downgrade, and easily deliverable.

When considering the establishment of a futures contract, it is important to appreciate that very few of the futures contracts that are proposed are ever implemented, and of those that are implemented almost all fail. Any futures contract based on the non-gilt sterling bond market is unlikely to break this rule. The potential difficulty of establishing such a contract can be seen by examining the long-gilts futures contract, use of which has become more difficult with the shrinkage of gilts issuance. Given that the total amount of non-gilts issuance is just now approaching that of total gilts issuance, and that the non-gilt bond market is composed of issues most of which both have significantly lower credit ratings than gilts, and are less liquid than the most liquid gilts issues, the difficulties of establishing a contract for the non-gilt sterling market are self-evident. Nevertheless, the establishment of such a contract would be warmly welcomed by many market participants. Although futures exchanges themselves have an incentive to develop new contracts that work, encouragement by market participants of such exchanges to consider a non-gilt sterling bond contract might help bring about its introduction.

4.3. Automation

Various attempts to automate trading in the Eurobond market have been made in the past - starting with Eurex[30] in 1985 and InterVest[31] in 1992 - most of which have failed. This has been primarily due to resistance by the larger market-makers to the development of such systems. They used to believe that their order flow and profits would be compromised by participating in such systems, not least because the systems would make the markets more transparent. To date there has been little dealing of non-gilt sterling bonds on automated trading systems.

Over the recent period, however, a large number of automated trading systems have been developed for various bond markets, some specifically designed for dealing in Eurobonds, including Eurosterling issues, and many others which could be relatively easily adapted for this market[32]. It is not intended here either to provide a list or description of such systems, or to assess their relative merits. Three general points about the use of such systems are, however, noted.

First, the likelihood of an automated trading system being successful in the non-gilt sterling bond market, and more generally in the Eurobond market, is probably greater now than it ever has been in the past. The example of the successful establishment of some direct institution-to-institution trading systems in the equity markets, has convinced the major market makers that they could be dis-intermediated. In response, and for the first time, they have sought to create their own automated trading systems, either by building them individually, or by joining various consortia which are seeking to build them on a mutual basis.

Second, the migration from an OTC dealer market to an automated trading system can bring a range of benefits. It can enhance inter-dealer competition, lower bid-ask spreads, and increase transparency. It can also allow investors direct access to the market, thereby negating the need for intermediation by a dealer. It is therefore suggested here that market participants actively consider using automated trading systems for non-gilt sterling bonds.

Finally, concerns about "fragmentation" in the market, arising from the existence of multiple dealing systems are likely to be misplaced[33]. The experience of competition between trading systems in the equity markets of both the USA and Europe has been unequivocally positive. It has led to lower transaction costs, increased efficiency and quality of trading systems, and augmented liquidity. It has encouraged the use of better technology in trading, and has provided an incentive for trading systems to enhance their product lines. Finally, it has allowed different types of trading systems to come into existence to satisfy the needs of disparate types of traders. For example, market participants who wish to trade immediately can choose to trade on a system on which market makers provide immediacy; while patient traders can choose to trade on a single-price auction system or a crossing network, both of which can reduce bid-ask spreads and market impact.

In any event, despite the current proliferation of automated trading systems, there is a powerful reason why trading in any particular class of assets, such as non-gilt sterling debt, is likely to be concentrated on a single dealing mechanism, or at most a very small number of competing systems. Successful trading systems benefit from a positive "network externality", in that the likelihood of a market participant receiving an execution of his order on a trading system is higher if other participants also send their orders to the trading system. Order flow thus attracts further order flow, and only a small number of the best of the competing trading systems are therefore likely to survive.

4.4. Price and Quote Transparency

The non-gilt sterling bond market is not fully transparent - neither dealer quotes, nor the prices and sizes of transactions are publicly disseminated in a timely and consolidated manner. The costs and benefits of mandatory transparency have been argued at length[34]. The US SEC has long been one of the strongest proponents of mandatory transparency, and it is in the USA that the policy has been implemented most vigorously. Following the 1975 Securities Act Amendments, quotation and transaction dissemination in the equity markets was instituted, in 1991 GovPX was created to distribute real time quotes and transaction prices for US Treasury securities, and in 1995 the Municipal Securities Rulemaking Board began collecting the details of dealer-to-dealer transactions in the municipal bond market and distributing daily summary reports. Recently the SEC has been seeking to enhance transparency in the US corporate bond market[35].

The supporters of mandatory price and quote transparency believe that it promotes almost all the key goals that regulation of the securities markets should seek to deliver: investor protection, fairness, competition, market efficiency, liquidity, market integrity and investor confidence. Transparency: 1) makes information available to all market participants; 2) ensures that markets allocate capital resources efficiently; 3) enhances surveillance efforts to prevent fraudulent practices; 4) allows traders to select which trading system delivers the best price thus facilitating arbitrage between different systems; 5) ensures that price priority obtains in the market, so that he highest bids and lowest offers get executed before other orders; 6) increases the volume by enhancing liquidity; and 7) lets investors monitor the quotes and executions they receive from intermediaries.

The most important argument against mandatory transparency in the context of an OTC dealer market, such as the non-gilt sterling bond market, is that it may compromise the delivery of liquidity. If a dealer takes on a position at a certain price, and information about the trade is immediately disseminated throughout the market, then everybody in the market will know whether a dealer purchase or sale has been made, by comparing the price of the trade with current quoted prices. The price in the market will then move against the dealer's position. For example, if a dealer bought some bonds, then everybody could infer from the information disseminated about the trade, that a dealer had some bonds for sale. This would then depress the price for those bonds. Dealers could react to these adverse movements by seeking to protect themselves and widening their spreads, thus reducing liquidity.

Several factors point to what might be considered in the non-gilt sterling bond market with regards transparency. First, as indicated in the section above, it appears that dealers have become much less willing to take positions on their book than before. The force of the primary argument against transparency has therefore been reduced, and indeed they may see the benefit of enhanced transparency in greater order flows. Second, any attempt to impose by regulation a regime of mandatory transparency in the Eurosterling market is unlikely to work, given the ease with which dealers can move their positions out of a particular jurisdiction. Third, investors and issuers will be clear beneficiaries of enhanced transparency should it lead to reduced transaction costs. Rather than attempt to make a radical change in the manner in which the market operates by implementing transparency in a wholesale manner, possibly against strong resistance by market makers, investors and issuers should therefore consider persuading market-makers to establish a pilot scheme for enhanced transparency in selected issues to gauge its effects.

5. Regulation

Three regulatory topics affecting the non-gilt sterling bond market are briefly examined here, concerning, respectively, listing, liability matching, and a regulatory focus on fees. A full examination of these issues and their importance to the market is not presented. Instead, a few brief theoretical comments are made on these topics, with the aim of contributing to the debate about them.

5.1. Listing

A regulatory distinction is sometimes drawn between listed and unlisted securities, which has particular implications for the sterling non-gilt fixed-income market. Such a distinction is, for example, evident in the admissibility rules applied to the assets held by insurance companies, which split assets into pre-determined categories and assign a maximum limit to each for solvency requirements[36]. Different limits are applied to listed and unlisted securities.

It used to be thought that listed securities had two major advantages over unlisted securities – they were more liquid, in that they could be traded on the exchange on which they were listed, and sufficient information was disclosed about their issuers that a fair price could be determined for them again on the relevant exchange. As discussed above, however, the current reality is that neither advantage appears to be valid any more. There is little correlation between whether a fixed-income sterling bond is listed or not, and whether it is liquid or not. Indeed many such securities are listed but exhibit similar levels of liquidity to private placements – namely very little. Furthermore, the fact that a non-gilt sterling bond is listed does not appear to guarantee that sufficient information about its issuer is publicly available for a fair price for the bond to be determined. There is thus little to distinguish between the economic characteristics of listed and unlisted sterling bonds. It is therefore suggested that the regulatory distinction between listed and non-listed fixed income securities should be re-examined.

5.2. Liability Matching

There is a central and justifiably important regulatory concern that both insurance companies and pension funds with long-term liabilities should be able to deliver on their obligations. Given the past problems arising from the Maxwell pension fund scandal, even political attention has been drawn to the need to ensure the solvency of institutions with long-term financial liabilities. The manner in which insurance companies and pension funds are required by regulation to show they can satisfy their liabilities has significant implications for the demand for fixed-income sterling bonds, both gilts and non-gilts. A full analysis of this debate is, however, beyond the scope of this report. Nevertheless, one brief comment on the need to match long-term fixed liabilities with long-term fixed income assets of a similar maturity is made here[37].

There is a significant risk that if assets and liabilities are mismatched in terms of maturity, a fund may not have sufficient funds to cover its long term liabilities. If a fund holds short-term fixed assets but has long-term fixed liabilities, adverse market moves when the short-term assets need to be re-invested could mean that the delivery of the long-term liabilities is jeopardised. Accepting the possibility of this risk, does not, however, mean that maturity-matching of assets and liabilities is always the best policy.

In some limited circumstances, the costs of matching long-term assets with long-term liabilities may be relatively high, and the risks of not doing so relatively low. This may occur when: 1) there are not enough long-term assets to set against the amount of long-term liabilities, 2) the yields of the available long-term assets are extremely low compared to those on short-term assets, 3) there is a reasonable method of hedging the re-investment needs for such short-term assets, 4) there is a possibility of marking-to-the-market any discrepancies between appropriately discounted assets and liabilities, and some form of initial/variation margin can be added to protect against adverse market moves, and 5) there are few acceptable credits to invest in on a long-term basis, and much greater diversification is available in the short-term asset market. It is not intended here to under-estimate the risks of allowing a maturity mis-match between long-term assets and liabilities. It is, however, suggested, that these risks should also not be over-estimated. When imposing regulatory capital requirements on non-matching strategies, the costs and benefits of such strategies should be carefully assessed.

5.3. Fees

In some contexts, there appears to be a regulatory focus on fees and cost reduction in order to protect investors. This may have the undesirable effect that investments which cost more than a pre-specified minimum level, but which have high expected returns, are unlikely to be considered. One instance of this arises from a justifiable regulatory concern in the insurance industry that shareholders should not unfairly exploit policy-holders. This is relevant for so-called "90-10" life funds, from which policy-holders receive 90% of the profits and shareholders the other 10%, but to which shareholders provide investment management services.

The FSA has to agree to the level of fees that shareholders charge such funds, and it does so on the following basis:

> The price of these [investment] services should be such as to be demonstrably fair to the long term fund. To demonstrate fairness to the long term fund in assessing the applicability

> of such market data as is available, due account should be taken of the size of the services to be provided, and the fact that in many areas, the long term fund provides a very substantial captive base load without any significant risk element for shareholder funds. Given the size and certainty of this captive base load, there are opportunities for the mandated services to secure elsewhere higher returns. It would also be reasonable for the long term fund to participate in the savings to be expected over time from efficiency gains and investment in new technology[38].

In practice when assessing whether fees are "demonstrably fair" to a fund, it has been indicated that the FSA seeks to apply a specified maximum profit margin above costs. The risk the FSA is justifiably seeking to protect policy-holders against is that shareholders charge a high level of fees for a low-quality service. An emphasis on fees rather than on investment returns, however, means that there is a possibility that investment strategies that are financially productive for policy-holders are not undertaken because they benefit shareholders too much. By forcing shareholders to charge a low-level of fees, policy-holders are more likely to receive a low-quality service. A well-meaning regulation may thus harm the interests of the policyholders whose interests are supposedly being protected.

When there is a potential conflict of interest between a principal (in this instance a group of policy-holders) and its agent (in this instance an insurance company managing a fund with policy-holders' funds), a common solution is to allow the creation of a contract between principal and agent which aligns their interests closely. One typical such contract would allow for an appropriate level of profit-sharing between principal and agent (policy-holders and shareholders respectively) in any benefits that are achieved as a result of investments by the agent. If, however, the regulator seeks to place a maximum limit on the amount of profit-sharing possible, then once again such a contract may not be mutually acceptable. Other types of contracts aligning principals' and agents' interests are also possible.

Notwithstanding the fact that policy-holders' funds may essentially be held captive by an insurance company managing them, if policy holders agree to an appropriate contract before their funds become captive, the possibility of inappropriate exploitation of their funds by the insurance company may be minimised. It is therefore suggested here that investor protection might be obtained both by rules that seek to protect principals from their agents pursuing policies that are not in the principals' interest, and by incentive-compatible regulation, in this context meaning rules that seek to ensure that principals and their agents have similar objectives.

6. Investors

Four issues related to investors and their behaviour in the non-gilts sterling bond market are examined here, concerning, respectively, consolidation, research, excessive caution, and the possibility of establishing an industry-wide bondholder's voice.

6.1. Consolidation

There is a widespread perception that the non-gilt sterling bond market is currently dominated by a small and shrinking number of large and powerful investors. This has arisen both because of consolidation in the insurance industry and because of the success of the biggest fund managers in attracting a significant amount of pension fund mandates. This consolidation appears to give rise to several main effects.

First, given that all the major institutional investors have access essentially to the same information, and that their mandates are relatively similar, they all tend to trade on the same side of the market at the same time. This makes it difficult for market makers to provide liquidity – if everybody wants to buy a security, it is hard for the market makers to find counterparties willing to sell. Second, the participation of the top UK fund managers can reportedly be very important to the success or failure of a new issue. Third, the largest investors may be able to negotiate better prices from dealers than their smaller competitors. Finally, foreign investors may be deterred from participating in the market, as they are uncertain how their interests may be affected by the actions of the small group of powerful local investors.

To some extent, the dominance of the market by a small group of investors will be self-correcting. If these investors perceive that their presence leads to difficulties in the market for themselves, such as a lack of liquidity, they will be less willing to continue investing in the market. For those issuers and investors who are not constrained to use the non-gilt sterling bond market, any concentration of investors in the non-gilt sterling bond market is also likely only to be marginally relevant. If the non-gilt sterling bond market is thought un-competitive, issuers can choose to issue in alternative markets, such as the Euro or dollar bond markets, and investors can also choose to invest in these other markets.

It is primarily for those issuers which are constrained to use the non-gilt sterling bond market, either for regulatory reasons or for other factors, such as a lack of name recognition outside the UK, that the perceived concentration of UK bond investors may be problematic. These are likely to be smaller issuers. Any adverse effects on such institutions may, however, be limited for two reasons. First, small issuers are unlikely to use the bond market to raise debt given the relatively high costs of doing so for a small issue, and the lack of demand for small issues which by their nature are relatively illiquid. Second, smaller firms are also likely to have alternative sources of funds, such as direct bank financing or syndicated loans, from which they can seek financing if the bond market is thought uncompetitive.

6.2. Research

Bond investors face a well-documented dilemma in their use of investment bank research. On the one hand, while some research is believed excellent, many investors question the value of much of it - sell-side researchers' independence is believed to be undermined by their inability to write anything that might prejudice their firms' commercial interests in either the primary or secondary markets. On the other hand, few fixed-income investors have sufficient internal analysts to undertake the necessary credit analysis given the size of their portfolios, and in aggregate they have not yet been willing to pay directly for external, but non-investment bank sponsored, research on a systematic basis. In part this unwillingness has been due to the fact that they are inundated by "free" research, namely research for which there are no directly attributable costs, even if indirectly it is subsided by investors' primary and secondary market trading activity.

One possible, but difficult-to-implement, response to this is for investors to request that investment banks charge separately for research and un-bundle this service from the provision of primary and secondary market services they offer. Investors would then be able to choose whether to continue receiving investment bank research on an appropriate cost basis, and to receive the other services they receive from investment banks at an appropriately discounted level. Greater use by investors of paid-for, but external research, would put pressure on the banks to be more explicit about their implicit charging policies and cross-subsidies.

6.3. Excessive Caution

It is, of course, the right of each investor both to choose its own investment strategy and to arrange its own internal investment priorities, subject to any regulatory constraints it may face. Furthermore, competition between investors should provide a sufficient incentive in the long run for them to pursue the most efficient strategies given the risk profiles they are asked to follow, as by doing so they will earn the highest returns for their clients. Nevertheless, a commonly-held view amongst both the buy- and the sell-side of the market, is that some investors, and also their clients, are not taking advantage of opportunities which could reasonably enhance their returns on an appropriately risk-adjusted and costed basis. Such investors are believed to be excessively cautious. Two examples may illustrate this.

First, following the growth of issuance of high-quality non-gilt sterling bonds in the market during 1998, substantial diversification out of the gilts market to enhance yields was undertaken by life companies, but not by pension funds[39]. As noted by Barclays Capital, this was despite the fact that the DMO and other commentators, stressed that the MFR, as it then stood, did not require pension funds to purchase gilts as opposed to other types of bonds.

Second, there is some evidence, and also a widely held belief, that the universe of lower-quality, but still investment grade, fixed-income investments yield significantly more than can be justified by their historical default experience[40]. With enough diversification across the universe of such bonds, the average default probability on a portfolio can be obtained, and the risk-adjusted returns should out-perform a strategy of choosing a high-grade credit portfolio. Such a strategy does assume the continuation of historical default probabilities in the future, and does require an investor to be willing to invest in lower-grade credits, to forego liquidity, and to have sufficient capability to monitor its credit investments.

It is important to stress that the strategies described above neither were, nor are, necessarily appropriate for any particular investor. In aggregate, however, it is perhaps surprising that so few investors either were, or are, able to employ them, taking into account the additional risks and costs. There are also other portfolio and investment strategies rarely followed by investors in the sterling fixed-income market, which are potentially even more rewarding, as well of course as being both more risky and more costly. These include purchasing private placements, running short portfolios with an appropriate securities borrowing policy, and the employment of swap–based products to enhance yield.

6.4. The Bondholders' Voice

Throughout this report a series of issues have been identified which significantly affect the interests of the holders of fixed-income non-gilt sterling securities, and indeed the broader group of Eurobond holders. For some of these issues there may be differing views in the market, and for others there are already ad hoc committees or bodies examining appropriate responses. For a substantial range of issues, however, there is currently no centralised institutional structure for promoting bondholders' interests in a coordinated manner, and despite the importance of these issues they are therefore either being ignored, or being responded to by single institutions which individually lack the authority that an industry-wide body could bring. Notwithstanding both the fact that everybody in the market is extremely busy, and the difficulties of establishing, funding and manning, such a body, the creation of a committee to represent bondholders from all groups of investing institutions may prove constructive.

7. Conclusions

The primary focus of this report has been to identify and discuss some key factors which could encourage the development of the non-gilt sterling bond market. One theme which emerges strongly throughout the report is the crucial importance of information flows. This is true both in the new issue process where better and more timely information could help investors decide on whether to subscribe and secure more appropriate pricing for issuers, and in the trading environment, where greater information and price transparency could help promote liquidity. A particular point of concern is the merit of maintaining flows of information to investors in the bond market comparable to those enjoyed by investors in equities. Experience does not suggest that listing alone secures either liquidity or a full information flow. It follows from this, too, that improvement in the quality of available research would help the market function better.

Recognising the extraordinary pace at which the market has developed in recent years, the report nevertheless makes a series of suggestions for how its structure may be further enhanced. These suggestions are intended to complement the progress that has been achieved to date. The main conclusions are summarised here in the order in which they occur in the body of the report:

- Issuers should seek to provide sufficient information in a timely manner to allow investors to assess new issues.
- The market should examine whether bondholders should receive the same amount of information as equity holders, and if so, how this should be enforced.
- Bondholders should work together to negotiate bond covenants. Consideration should also be given to the establishment of an industry-wide set of standardised covenants, and to the clarification of the legal status of such covenants.
- Market participants should work with Euroclear and Clearstream to produce accurate and timely turnover data.
- More attention should be given to the appropriate trade-off between liquidity and returns.
- Active consideration should be given to the use of automated trading systems for dealing in non-gilt sterling bonds.
- Investors and issuers should support a pilot project to promote transparency of price and quote information in selected non-gilt fixed income securities.
- The regulatory distinction between listed and non-listed fixed income securities should be re-examined.
- The costs and benefits of requiring maturity-matching between assets and liabilities for regulatory reasons should be revisited.
- The merits of protecting insurance policy-holders by establishing maximum fees that can be charged by bond fund managers should be re-examined.
- The establishment of a Bondholder Committee to help take the above agenda forward should be considered.

Appendix 1: Notes

1 The report was commissioned on 12/2/2001 for delivery on 20/3/2001. The commissioned length was 10,000 words.

2 The EIB issued £9.1 Billion, and the DMO issued £7.75 Billion.

3 p. 27, Barclays Capital (7/2/2001).

4 p. 26, Barclays Capital (2001).

5 See chapters 13-18, Phillips (1996) and Temperton (1997).

6 These definitions are drawn primarily from Moles and Terry (1999).

7 See Morgan Stanley Dean Witter (1/2001) and Merrill Lynch (4/9/2000).

8 See Watson Wyatt Partners (11/2000).

9 See Ashurst Morris Crisp - Nigel Ward (12/2000).

10 p26, Barclays Capital (2001)

11 This could not be confirmed by the supplier of the data.

12 See, for example, p. 42, Merrill Lynch (4/2000).

13 See, for example, p. 6, Royal Bank of Scotland (1/2001).

14 See p. 11, Standard & Poor's (2/2000).

15 p. 2, Robinson (2000).

16 Amihud & Mendelson (1986) confirm the positive link between liquidity and pricing.

17 See p. 26, HSBC (1/2001).

18 Rule 3.2, LSE (5/2000).

19 Rule 23.22, UKLA (2001).

20 See Committee of Wise Men (15/2/2001) and Lee (1994).

21 See Moles & Terry (1997).

22 p. 3, Greenwich NatWest & Pearce (10/1999).

23 p. 10, Greenwich NatWest & Pearce (10/1999).

24 See p. 28-33, HSBC (1/2001).

25 The merits of using indices to assess investment performance are not examined here.

26 See http://www.creditmag.com/feb00/news/feb00news3.htm for a brief discussion about funds' choices of indices.

27 This information was received second-hand.

28 ABN AMRO, Barclays Capital, BNP Paribas, Deutsche Bank, Dresdner Kleinwort Benson, Morgan Stanley Dean Witter, and UBS Warburg.

29 Go to http://deutsche-boerse.com, and search for iBoxx.

30 See http://www.cedelbank.com/frames_publi/transact/_t296_a2.htm. This Eurex is not the same as the German futures exchange with the same name.

31 See Currie (2/2000).

32 They include Autobahn (operated by Deutschebank), Bondbook www.bondbook.com, Bondclick www.bondclick.com, Bond Express www.bondexpress.com, Bondlink www.tradingedge.com, BrokerTec www.brokertec.com, Coredeal www.isma.co.uk, eSpeed www.espeed.com, Euro.MTS www.euromts-ltd.com, LIMITrader www.limitrader.com, Market Axess www.marketaxess.com, and Tradeweb www.tradeweb.com.

33 For a discussion about the meaning, costs, and benefits, of fragmentation, see pp. 53-54, Lee (1998).

34 See pp. 255-271, Lee (1998).

35 See, for example, SEC (26/5/1999).

36 Schedule 12, Part II, UK Insurance Company Regulations 1994.

37 See OECD (7/12/1999).

38 Letter, which is still in force, sent by the Department of Trade and Industry in 1989, the relevant regulator at the time, to an insurance company.

39 This argument is drawn, amongst other places, from pp. 2-3, Barclays Capital (23/10/2000).

40 See, for example, pp. 36-37, Barclays Capital (7/2/2001).

Appendix 2: Acronyms

ABI	Association of British Insurers
DMO	Debt Management Office
EIB	European Investment Bank
FSA	Financial Services Authority
ISMA	International Securities Market Association
KfW	Kreditanstalt für Weideraufbau (German State Development Bank)
LIBOR	London Interbank Offered Rate
LSE	London Stock Exchange
LTCM	Long-Term Capital Management
MFR	Minimum Funding Requirement
NAPF	National Association of Pension Funds
NAV	Net Asset Value
OECD	Organisation for Economic Cooperation and Development
OTC	Over-the-Counter
PIBS	Permanent Interest Bearing Shares
RIE	Recognised Investment Exchange
SEC	Securities and Exchange Commission (US)
UKLA	UK Listing Authority

Appendix 3: Interviewees

Tony Assender	Marketing Director, Corporate Ratings, Standard & Poor's
Kenneth Ayers	Frank Russell
Ted Bacon	Executive Director, Zurich Scudder Investments
Helen Bamber	Sterling Syndicate, Treasury and Capital Markets, HSBC
Anthony Barklam	Executive Managing Director, Morgan Stanley Dean Witter
Alok Basu	Credit Strategist, Merrill Lynch
Catherine Beech	Manager, Insurance Regulation, Association of British Insurers
Karl Bergqwist	Director, Fixed Income Credit Research, HSBC
Isabelle Bock	Quality Manager, New Issues Operations, Euroclear
Caroline Bradley	Technical Officer, Association of Corporate Treasurers
Jonathan Bradley	Sterling Fixed Income, Royal Bank of Scotland
Phil Bruce	Managing Director, Strategy and Development, London Clearing House
Michael Carter	Head of Fixed Income, Hermes
Peter Charles	Managing Director, Fixed Income Syndicate, Schroder Salomon Smith Barney
David Clark	Head of Funding, Europe (ex. euro) and Africa, European Investment Bank
Adam Cole	Senior International Economist, Economics & Investment Strategy, HSBC
Simon Cowie	Senior Analyst, Fixed Income Credit Research, Treasury & Capital Markets, HSBC
Clifford Dammers	Secretary General, International Primary Markets Association
Tim Dickenson	Head of Corporate Communications, International Securities Market Association
Stephen Dulake	Vice President, Morgan Stanley Dean Witter
Robert Fumagalli	Vice President, Credit Strategist, European Credit Research, Schroder Salomon Smith Barney
Robert Gall	Assistant Director, Schroders
John Gillbe	Head of Group Finance & Special Projects, Lloyds TSB
Nicholas Greenwood	Director of Debt Markets, Merrill Lynch
Matthew Hancock	Markets Analyst, Gilt-Edged and Money Markets Division, Bank of England
John Hale	Manager, Investment Affairs, Association of British Insurers
Neal Hatch	Head of Gilt-Edged and Money Markets Division, Bank of England
Chris Hitchen	Investment Director, Railpen Investments
Myles McBride	Associate, UK & Ireland Debt Capital Markets, Schroder Salomon Smith Barney

Benedict McHugo	Head of Taxation, Association of British Insurers
David Meek	Vice President, Head of Corporate Bond Trading, Schroder Salomon Smith Barney
Eddie Monaghan	Senior Investment Analyst (Credit), Hermes
Anthony Morris	Associate Director, Fixed Income, UBS Warburg
John O'Mahony	Director, Analytics Research & Development, UBS Warburg
Simon Pilcher	Director, Head of Fixed Interest, M&G Limited
Peter Rains	Head of Fixed Income, Morley Fund Management
Jim Reid	Associate Director, Barclays Capital
David Self	Director, Securities Data, International Securities Market Association
Craig Shute	Gilt-Edged and Money Markets Division, Bank of England
Crispin Southgate	Managing Director, Global Securities Research & Economics, Merrill Lynch
Nick Tudball	Managing Director, UK Fixed Income Sales, UBS Warburg
Andrew Tunks	Managing Director, Worldwide Bonds & Treasury, Royal & SunAlliance Investments
Martin Wade	Senior Fund Manager – Fixed Income, SLC Asset Management

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Association Of British Insurers
51 Gresham Street, London EC2V 7HQ
Tel: 020 7600 3333 Fax: 020 7696 8996
Web site: www.abi.org.uk