

The future structure of the gilt-edged market

The Bank of England's dealing and supervisory relationships with certain participants—draft proposals⁽¹⁾

1 The Stock Exchange's paper 'The Market in Gilt-Edged Securities' published on 8 August set out detailed proposals for the overall structure of the future gilt-edged market.⁽²⁾ This paper sets out the Bank of England's proposals for its own relationship, within that overall structure, with those with whom the Bank will transact business under the new arrangements, ie the gilt-edged market makers, as well as for the arrangements that might apply to those providing ancillary services to the market makers, ie Stock Exchange money brokers and inter-dealer brokers (IDBs).

2 These proposals have been developed through the Bank's bilateral discussions with a wide range of prospective participants in the new market structure. The Bank would welcome comments on the proposals by 19 January 1985. It will aim to publish a final version of them as soon as possible thereafter. It will then be prepared—as explained in Section V, 'Next Steps', below—to engage in formal discussions with those who then wish to enter into any of the relationships described.

I Market makers

3 The essential liquidity of the new gilt-edged market will be provided by a number of market makers who undertake to make to other participants, on demand and in any trading conditions, continuous and effective two-way prices at which they stand committed to deal.

4 To assist those participants who are willing to take on this market-making obligation, who demonstrate the capacity—in terms of capital and of management and operational resources—to do so, and who are prepared to accept the Bank's prudential oversight, the following facilities will be offered:

- (a) a direct dealing relationship with the Bank in gilt-edged securities;
- (b) subject to the agreement of the Government, facilities to borrow stock and tax treatment comparable to that currently accorded to the present gilt-edged jobbers;
- (c) borrowing facilities at the Bank against approved security up to maximum amounts related to the market maker's capital and reserves; and
- (d) access to the inter-dealer broker mechanism.

(i) The obligations

(a) Market making

5 The basic obligation of market makers will be to make, on demand and in any trading conditions, continuous and effective two-way prices at which they stand committed to deal, in appropriate size as discussed in advance with the Bank, thereby providing continuous liquidity for the investing public. It is envisaged that there will be different types of market maker. Some may choose to operate through a presence on The Stock Exchange floor or in provincial centres, meeting their market-making obligation in that capacity by quoting two-way prices to other member firms of The Stock Exchange in much the same way as single-capacity jobbers under the present arrangements. Others may choose, as well as or instead of maintaining a floor presence, to meet their obligation operating 'upstairs' by quoting two-way prices by telephone and/or screen on demand to all other member firms of The Stock Exchange and to outside investors known to them directly.

6 The essential purpose of this obligation—which will be mirrored in parallel obligations in The Stock Exchange's rules—and the reason for the relationship with the Bank, is to ensure that the market makers make markets impartially to all comers; it is not the intention that a market maker provides a dealing service confined mainly to other entities within a particular group. Each market maker's performance against his undertaking, taking account of the role he plays in the market, will be closely monitored by the Bank; failure to live up to that undertaking would ultimately result in the ending of the relationship with the Bank. Over time the Bank will seek to develop performance criteria based upon share of turnover with the investing public, by value and volume of transactions, to supplement its direct observation of market-making activity. But in applying such criteria it would in any event take special account of the position of those market makers serving smaller investors and their brokers.

7 The Bank would like to encourage market making in as wide a range of listed sterling debt securities as possible. The Bank's market-making obligation will, however, apply specifically to gilt-edged. Some market

(1) This paper and the three annexes that follow were published by the Bank on 7 November.

(2) Throughout these papers 'gilt-edged' means British government (and British government-guaranteed) stocks denominated in sterling.

makers may initially be permitted to confine their operations to the short market, but in that case the Bank will expect them over time to extend such operations to the full range of stocks. The range of sterling debt securities, including the range of gilt-edged, in which a market maker intends to make a market could become a criterion in choosing initially between prospective market makers if it should become necessary for the Bank to exercise such choice (see Section IV below).

(b) Arrangements for prudential supervision of market makers

8 The Bank intends to confine its dealings to market makers who are Stock Exchange member firms. This will ensure that the gilt-edged market as a whole is subject to Stock Exchange regulation as far as trading practices and professional standards are concerned. The Stock Exchange, for example, will monitor trades from the point of view of investor protection.

9 As far as the prudential supervision of participants in the gilt-edged market is concerned, the Bank intends to supervise the capital adequacy of the market makers, and of the providers of ancillary services to the market makers, ie the Stock Exchange money brokers and inter-dealer brokers. This, and the monitoring of the functional obligations described in paragraphs 6, 24 and 29 apart, The Stock Exchange will be responsible for all other aspects of market supervision, including the supervision of the capital adequacy of all other Stock Exchange members.

10 The main feature of the Bank's prudential supervision will be the monitoring of the adequacy of each market-making firm's capital resources in relation to its exposure to risks of various kinds. To facilitate this supervision, and to ensure as far as possible equal competition among the market makers, the Bank will require gilt-edged market makers to be separately established as companies or partnerships with dedicated sterling capital in this country. The Bank will also seek assurances from substantial shareholders in market-making entities that they accept ultimate responsibility for the liabilities of the entity. Separate capitalisation need not exclude elements of common management or staffing with related entities;⁽¹⁾ but the Bank would expect transactions with related entities normally to be carried out at arm's length, and will want them to be separately reported to the Bank. The gilt-edged market maker thus defined would be expected to deal only in sterling fixed-interest or floating-rate or indexed securities, excluding preference shares and loan stock convertible into equity. It would be able also to deal in approved sterling money-market instruments, but not to have a dealing relationship with the Bank in such instruments, although a related entity could do so.

11 The form of the Bank's proposed prudential supervision of gilt-edged market makers, and the

information that the Bank will need for that purpose, are described in detail in Annex 1. The Bank will discuss with potential market makers their intentions with regard to capital in the light of the role they plan to play in the market, but it will not lay down minimum or maximum capital requirements: instead it will regulate the ratio of risk exposure to capital that a market maker can undertake.

(ii) The facilities available to market makers

(a) The dealing relationship with the Bank

12 It is not possible fully to foresee how the present techniques for financing the government through the sale of gilt-edged might be affected by the change in market structure. One possibility which the Bank will wish to examine is whether some part at least of the funding programme might be put on a more regular footing, with greater reliance on the primary market. The Bank will in due course wish to discuss this possibility with the market makers, including in that context arrangements to ensure their appropriate support of the primary offerings. Such possible developments notwithstanding, the Bank expects to retain the flexibility provided by a substantial continuing presence in the secondary market through its dealing relationship with market makers.

13 The Bank will undertake such market operations as it sees fit, but specifically it will be prepared:

- (i) to receive directly from market makers—just before the official market opening or at any time during the normal business day—outright bids for stock, including particularly tap stocks, which it may have in its portfolio: the Bank will respond to such bids entirely at its discretion;
- (ii) at its discretion to undertake switches of stock proposed to it by market makers on such terms as it may agree;
- (iii) to bid a price of its own choosing for stock with three months or less to maturity offered to it by market makers;
- (iv) to bid a price of its own choosing for index-linked stock offered to it by market makers;
- (v) at its discretion to purchase outright, at prices of its own choosing, other stock that may be offered to it by market makers. The Bank expects to exercise this discretion more liberally for stocks with between three and twelve months to maturity than for other stocks.

(b) Technical arrangements

Borrowing stock

14 The Bank is not prepared at this stage—essentially for prudential reasons—to envisage the development of an unregulated market in repurchase agreements in government securities such as exists in the

(1) Related entities include any company with the same ultimate holding company as the market maker, or any company or partnership controlled by partners in the market maker.

United States. The present arrangements for regulated stock borrowing and lending to facilitate market liquidity will therefore continue. In particular, the Inland Revenue will continue to treat the loan and recovery of stock as a disposal and acquisition for capital gains tax purposes unless:

- (i) the lender is an approved lender;
- (ii) the borrower is an approved borrower; and
- (iii) the loan is arranged by an approved Stock Exchange money broker (see Section II below).

Subject to the agreement of the Government, gilt-edged market makers under the new arrangements will be approved borrowers for this purpose.

Taxation

15 Subject to the agreement of the Government, it is envisaged that the tax arrangements currently available to gilt-edged jobbers will in substance be made available to gilt-edged market-making entities, viz:

- (i) exemption from Section 472(1) of the Income and Corporation Taxes Act 1970, which enables them to claim relief against tax for the full trading loss made by buying stock cum-dividend and selling it ex-dividend in the ordinary course of business, regardless of the interval between the purchase and the sale; and
- (ii) 'bull and bear' dividend arrangements which allow the jobbers to offset, for tax purposes, dividends paid by them on stock they have sold against dividends received on stock they have purchased.

(c) Financing

16 It is envisaged that the present arrangements whereby banks whose bills are eligible for rediscount or acceptable as security at the Bank of England are required to keep a certain proportion of their eligible liabilities in the form of secured money with discount houses, gilt-edged jobbers or Stock Exchange money brokers, will lapse before the new gilt-edged market structure comes into effect. Gilt-edged market makers (and Stock Exchange money brokers) should nevertheless be able to arrange financing for their activities on fine terms, since they will be borrowing on very high quality security and will be subject to close prudential supervision.

17 Money placed by monetary sector institutions at call or overnight with gilt-edged market makers or with Stock Exchange money brokers and secured by gilt-edged stocks or by Treasury, local authority or eligible bank bills will continue to count as an offset in the calculation of those institutions' eligible liabilities. In addition, the Bank will be prepared to make available to the gilt-edged market makers (and Stock Exchange money brokers) secured borrowing facilities at the Bank which may be drawn upon in case of need at the market maker's initiative subject to maximum amounts related to the borrower's capital. The availability of such facilities in favour of this group of

directly supervised institutions will mean that the Bank will regard secured lending at call to them by banks and licensed deposit takers as high quality liquidity, and will assign such lending a low risk weighting for capital adequacy purposes.

(d) Access to inter-dealer brokers (IDBs)

18 It is expected that a number of competing inter-dealer brokers will provide dealing facilities between the market makers (see Section III below). The essential purpose of these arrangements is to enable the market makers to unwind stock positions that arise from their market-making activities with investors or their agents, and IDBs are likely to make an important contribution to the overall liquidity of the market.

19 Many potential participants in the new arrangements have argued that access to IDBs should be confined to the market makers alone, for two reasons:

- (i) If the market makers are to be able to trade actively and in large amounts through the IDB networks on a 'blind' basis—that is, without knowing the identity of their ultimate counterparty—then they need to have confidence in the creditworthiness of all the other parties who can deal through the IDBs. This argues for confining access to the IDB networks to the market makers, who are subject to common supervision.
- (ii) Concern has also been expressed that wider access to the IDB networks could endanger the continuous liquidity of the market, to which the Bank attaches great importance. The concern is that such wider access could enable broker dealers, who undertake no obligation to make continuous markets in all conditions, to attract business away from the market makers at times when there was a good two-way flow of business and so relatively little risk, which in turn would weaken the ability of the committed market makers to continue making effective two-way prices in more difficult times.

20 These concerns may lessen in time as participants gain experience with the new market arrangements. But in the initial phase at least the Bank is anxious to encourage the liquidity provided by the market-making core of the new structure and so will want the IDB networks to be made available only to the market makers.

21 The Bank will, however, monitor the working of the IDB arrangements as the market develops and, once there has been time to gain practical experience of the new market in operation, the Bank will review with market participants whether it would be beneficial for the market as a whole to extend access to the IDB networks more widely.

22 Other market participants will of course have ready access to current prices both for dealing and for information:

- (i) through the competitive dealing quotations made to them by the market makers—whether on demand by telephone, or possibly, at the discretion of the market maker, continuously through screen technology, or additionally, in the case of members of The Stock Exchange, on demand on the floors of the Exchange; and
- (ii) through the indicative prices that the Stock Exchange authorities are expected to collect centrally and publish.

II Stock Exchange money brokers

23 As explained in paragraph 14 above, the present arrangements for regulated stock borrowing and lending to facilitate market liquidity will continue through the intermediation of Stock Exchange money brokers. Because of the natural inter-relationship with stock borrowing, the financing of market makers' bull positions is likely also in significant degree to be arranged through Stock Exchange money brokers.

24 Subject to the agreement of the Government, firms will be provided with technical facilities necessary to enable them to act, or to continue to act, as Stock Exchange money brokers, provided that such a firm can demonstrate to the Bank:

- (i) that it has the capacity—in terms of capital and of management and operational resources—to perform this function; and
- (ii) that a broadly-based demand for its services exists among the gilt-edged market makers.

The purpose of providing such facilities will be to enable the money broker to provide a service to the market makers as a whole, and not simply to a related company or limited group of companies. The Bank will want to satisfy itself on a continuing basis that each Stock Exchange money broker is fulfilling that purpose.

25 Stock Exchange money brokers will be required to accept the Bank's prudential supervision, without which the Bank's supervision of the risks incurred by the market makers themselves would be incomplete. For the purpose of supervision money brokers will be required to be separately-capitalised entities, whose activities may not go beyond money broking in gilt-edged and other securities, dealing in money-market instruments and inter-dealer broking, though they need not go beyond money broking alone. The Bank will also seek assurances from substantial shareholders in such entities that they accept ultimate responsibility for the liabilities of the entity. Because of the confidential indications of the market makers' positions which a money broker necessarily acquires, management and staffing of the money-broking entity will, in this case, also need to be separated from that of other entities within a group. The Bank notes that where a prospective Stock Exchange money broker has ownership links with a market maker

or broker dealer, competitive pressures may make it difficult for him to demonstrate the necessary broadly-based demand for his services among the market makers as required under paragraph 24 (ii) above; but the Bank would not itself rule out such links. Money brokers would be expected to become members of The Stock Exchange if they are not already members.

26 The form of the Bank's proposed prudential supervision of Stock Exchange money brokers, and the information that the Bank will need for that purpose, are described in detail in Annex 2.

27 Paragraphs 16 and 17 above concerning the financing of market makers apply equally, *mutatis mutandis*, to Stock Exchange money brokers.

III Inter-dealer brokers (IDBs)

28 As explained in paragraph 18 above, an important role in contributing to the liquidity of the market is envisaged for a number of competing inter-dealer brokers.

29 The Bank will be prepared to provide firms with technical facilities necessary to enable them to act as IDBs, provided that such a firm can demonstrate:

- (i) that it has the capacity—in terms of capital and of management and operational resources—to perform this function; and
- (ii) that a broadly-based demand for its services exists among the gilt-edged market makers.

30 IDBs will be required to accept the Bank's prudential supervision, and the considerations and requirements relating to Stock Exchange money brokers in paragraph 25 above will also apply, *mutatis mutandis*, to IDBs.

31 The form of the Bank's proposed prudential supervision of the IDBs, and the information that the Bank will need for that purpose, are described in detail in Annex 3.

IV General

32 An important objective of the proposed arrangements will be to promote competition among market makers, among Stock Exchange money brokers and among IDBs. To that end the Bank hopes that it will be able to accept as participants all those applicants able to demonstrate adequate capacity to perform the respective functions, and, in the case of Stock Exchange money brokers and IDBs, able to demonstrate a broadly-based demand for their services. In general, no distinction will be made between domestic and foreign firms, except that, in the case of firms with substantial foreign ownership, the Bank will have regard to the extent to which British-owned firms can in practice undertake the equivalent activity in the relevant foreign market.

33 If in the event the numbers of otherwise acceptable applicants are such as to suggest a serious risk of disorder

during the process of transition, the Bank will exercise its discretion in choosing among them, and may have regard *inter alia*, in the case of prospective market makers, to the range of stocks in which the various applicants are prepared to make a market. After establishing an initial list of participants the Bank will not consider further applications from prospective participants before the new arrangements have come into effect, but will do so on an open-ended basis at any time after about a year's experience with the new market structure.

34 In the context of the Government's recent proposals for securities regulation, the Bank will be ready to discuss questions of principle relating to the application of the arrangements described in this paper with the new securities and investment body.

35 In both this latter connection and more generally, the Bank will need to be able to liaise with other regulatory authorities and to exchange with them information necessary to the carrying out of their respective regulatory responsibilities.

V Next steps

36 As indicated in the introduction to this paper the Bank would welcome comments on the above proposals,

including the proposals in the three Annexes, by 19 January 1985. Such comments should please be addressed to The Head of the Gilt-edged Division at the Bank.

37 In the light of these responses the Bank will publish its definitive proposals as soon as possible thereafter. Formal discussions with prospective gilt-edged market makers will then take place on the basis of the definitive proposals. The Bank will complete these discussions before taking any decisions, and will at that stage announce the number of applicants with some indication of the types of application. This information, which will only then become available, may prompt either withdrawals or new applications. The Bank hopes to be able to publish the initial list of market makers by the late Spring.

38 Formal discussions with prospective Stock Exchange money brokers and IDBs may also begin once the definitive proposals are published, but they can only be completed after the list of market makers has been announced, since only then will it be possible to assess how broadly based the market makers' demand for any particular firm's services is likely to be.

Annex 1 Prudential supervision of gilt-edged market makers

1 This paper contains the Bank's proposals for the framework of prudential supervision that it will want to apply to gilt-edged market makers.

2 Risk taking is an essential part of a market maker's function and the effective working of the market—in the interests both of the Government as borrower and of the investing public—requires that the market makers should be as free as possible to make their own judgements about the positions they wish to run. The aim of the Bank's supervision will be, within this framework, to ensure as far as possible that such judgements do not result in risks being taken which are disproportionate to the market maker's own funds, and which would endanger his ability to meet his obligations towards his counterparties. No supervisory arrangements can wholly exclude the risk of default, however, and it must remain the responsibility of the counterparties to satisfy themselves as to the integrity of a market maker with whom they deal.

3 As indicated in the main paper the Bank will require market makers to be separately capitalised in the UK and to trade only in sterling debt securities and related instruments, eg gilt-edged futures, and approved money-market instruments.⁽¹⁾ The Bank's prudential supervision will be based upon close familiarity with the management and business of each market maker, to be developed through regular quarterly bilateral discussions. It will be supported by continuous assessment of the market maker's risk exposure in relation to his capital resources freely available to meet losses, taking as a starting point the proposed detailed guidelines set out in Sections B and C below. These guidelines have been drawn up on the basis of the Bank's discussions with prospective participants and of a volatility analysis of the different sectors of the gilt-edged market. The Bank will welcome comments on these proposals, and may itself wish to propose modifications in the light of experience. The Bank's assessment of the market makers' financial performance and balance sheets will not, however, be based mechanically on these guidelines, which it regards as simply a starting point for such assessment.

4 The Bank's prudential supervision as described in this paper will take the place of capital adequacy supervision by The Stock Exchange for gilt-edged market makers. As part of the Stock Exchange membership requirements, however, market makers will be required to send copies of the reports identified in paragraph 31(iv) and (v) to The

Stock Exchange. As indicated in the main paper, the Bank will liaise with The Stock Exchange and other regulatory authorities on regulatory matters, and may in this context exchange with them other information necessary to the carrying out of their respective regulatory responsibilities.

5 The remainder of this paper is arranged as follows. Section A sets out the Bank's proposed requirements as regards the capital structure of gilt-edged market makers, and for measuring the market maker's capital base. Section B describes the proposed guidelines for measuring risk exposure. Section C describes the Bank's proposals for gearing, ie its proposed approach to the relationship between risk exposure and capital base. And Section D gives details of the regular reports that the Bank expects to require from market makers.

A Measurement of capital base

6 The Bank will want a gilt-edged market-making entity to be insulated as far as possible from any adverse development in other parts of any group to which it may belong, and it will wish to discuss the intended group structure with prospective gilt-edged market makers from this point of view. It will require gilt-edged market makers to be separately established entities in the UK with their own dedicated capital as defined below; and assurances will be sought from substantial shareholders that they accept ultimate responsibility for the market makers' liabilities. A gilt-edged market maker may not, without the agreement of the Bank, have as a partly or wholly-owned subsidiary any other entity operating in financial markets. The Bank will wish to be informed individually of all transactions between a gilt-edged market maker and any related entity, which the Bank would expect normally to be on an arm's length basis.

7 The capital base of a gilt-edged market maker which is a limited company will be defined as follows:

amount paid up on ordinary share capital
plus amount paid up on non-redeemable preference shares
share premium account
revaluation reserves
other reserves (to be specified)
profit and loss account as disclosed in last audited accounts
profit/loss to date (net of tax payable, calculated at the current corporation tax rate) since date of previous audited accounts including unrealised

(1) That is, Treasury, local authority and eligible bank bills and sterling deposits with and certificates of deposit issued by recognised banks, licensed deposit takers and building societies.

appreciation/depreciation, less dividends proposed amount paid up on subordinated loan capital, in certain circumstances subject to the Bank's agreement as to amount and as to terms

minus net book value of fixed assets (deducting only 20% of value of freehold and leasehold property)
goodwill and other intangibles
book value of securities other than sterling debt securities
book value of interests in subsidiaries and associated companies (share capital and loans)
non-marketable unsecured loans⁽¹⁾ other than holdings of sterling deposits with recognised banks, licensed deposit takers and building societies
(secured loans will be treated as adding risk to the book rather than as deductions from the capital base—see Section B below).

8 The capital base of a gilt-edged market maker which is in the form of a partnership will be defined as follows:

general partners' current and other accounts with the firm, net of tax due and accrued profits due to limited partners
plus general partners' capital accounts with the firm
limited partners' capital accounts
minus net book value of fixed assets (deducting only 20% of value of freehold and leasehold property)
goodwill and other intangibles
book value of securities other than sterling debt securities
book value of interests in subsidiaries and associated companies (share capital and loans)
non-marketable unsecured loans⁽¹⁾ other than holdings of sterling deposits with recognised banks, licensed deposit takers and building societies
(secured loans will be treated as adding risk to the book rather than as deductions from the capital base — see Section B below).

The Bank will require gilt-edged market makers which are in the form of partnerships to have partnership deeds approved by the Bank.

9 The Bank will not lay down either a minimum or maximum capital requirement for gilt-edged market makers. It will wish to discuss with the market maker individually the role which it intends to play within the market, and to satisfy itself that the initial capital proposed is appropriate to that intended role. Thereafter the Bank will be concerned primarily with the extent to which, and form in which, the market maker 'gears up' on its capital base, ie with the relationship between the overall risk exposure and capital, taking as the starting point the guidelines in Sections B and C below. The Bank will, *inter alia*, be concerned to ensure that any reductions in the capital base, as a result of losses or for any other reason, unless made good by the injection of additional capital, are reflected in an appropriate contraction in the market maker's risk exposure within a reasonable time.

B Measurement of risk exposure

10 Two general kinds of risk will be run by gilt-edged market makers:

- (i) *position risk* ie the risk of loss arising from the possibility of falls in the prices of assets in which the market maker has a net bull position, or of rises in the prices of assets in which he has a net bear position; and
- (ii) *credit risk* ie the risk of loss arising from the failure of another party to meet previously agreed obligations.

11 The methods by which the Bank proposes, as a first approximation, to evaluate these respective risks are as follows:

(a) Measurement of position risk

(i) Gilt-edged

12 The Bank proposes to look at a market maker's gilt-edged book by breaking it down into eight separate categories of stock, each of which would attract a different risk weighting intended to reflect the relative price volatility of the category. The objective is to obtain an initial, broad indication of the risk inherent in the market maker's gilt-edged position taken as a whole. Since the risk arising from positions in particular stocks or categories of stocks may be partly offset by opposite positions in other stocks or categories of stocks, the calculation makes allowance for such offsetting.

13 The position risk on the gilt-edged book as a whole will be the sum of three parts:

- I *The overall net bull or bear position*, with the contribution of different categories of gilt-edged weighted by given risk weights: this measures the risk from changes in the price level of the market as a whole. In this part of the calculation a position in one category of conventional stock may be offset against an opposite position in another category of conventional stock (after the appropriate weighting). No offsetting will be allowed, however, between conventional and index-linked stocks because their prices are less closely correlated. The weighted positions in conventional and indexed stocks will then be added together (without regard to whether the positions are positive or negative), and added to the results of II and III to give the total gilt-edged position risk.
- II *The net bull or bear position in each category of gilt-edged*, weighted by given risk weights: this measures the risk from net open positions in different categories of conventional gilt-edged, ie the risk that prices of different categories of stock will move in opposite directions. The size (disregarding sign) of the net position in each category will be taken, with no offsetting among categories in this part of the calculation.

(1) And loans secured other than by gilt-edged, other sterling debt securities, or approved money-market instruments.

III *The offsetting positions within each category of gilt-edged* (ie the smaller of the gross long or short position), weighted by given risk weights: this measures the risk from movements in relative prices of individual stocks within each category, ie from offsetting positions within each category. For the purpose of the calculation, matched long and short positions in the same stock may be ignored.

Table 1 shows the risk weights under each of these headings that the Bank would propose to use; and Table 2 gives an example of how the calculation works. The various weights are derived from an investigation of daily price movements over a period of some two years to June 1984: they are subject to revision in the light of further experience.

14 The position on which the calculation is based will include the effect of deals which have been agreed but not yet settled.

15 In the simple form described above, the formula penalises offsetting positions in stocks close to but on opposite sides of the boundaries between adjacent categories. For example, a long position of 100 in $4\frac{3}{4}$ year full coupon gilts offset by a short position of 100 in $5\frac{1}{4}$ year gilts could add 400 to the overall risk measure (column II, sum of rows D and F), whereas if the positions were in each case in gilts of, say, 6 months' longer maturity, so that both parts of it fell into category F, the addition to

the risk measure would be only 200 (column III, row F). In order to reduce the size of these effects the Bank proposes that for the purposes of column II, the weight applied to positions in stocks on either side of any borderline should be reduced to 1 if they are matched by offsetting positions in stocks on the other side of the borderline with a maturity less than a year different.

16 In principle, *convertible gilt-edged stocks* should be included in the calculation according to the maturity of the (longer-dated) conversion stock if the market values them in line with the value of that stock, and according to the value of the (shorter-dated) parent stock otherwise. The way in which the market values convertible stocks of course varies from time to time, and for practical reasons the Bank proposes to classify convertible stocks according to the maturity of the parent stock in its regular calculations of position risk. It will, however, monitor the position in convertibles to ensure that this convention is not causing the calculation to give a distorted impression of the market maker's risk exposure. The Bank proposes that *stocks with optional redemption dates* should be treated as maturing at the first optional date if, on the basis of their clean price, they stand at or above par; otherwise they should be treated as maturing at the last possible date (or as perpetuities if they have no final redemption date).

17 The position risk calculations will be based on market values of stocks. The treatment of partly-paid stocks will take account of the amount of future calls due.

Table 1
Proposed weights for calculating position risk

	I Risk weights for calculating overall net position	II Risk weights for net open positions in individual maturity bands	III Risk weights for matched positions in individual maturity bands
Maturity band			
A Up to a month	0	0	2
B Over a month but no more than 3 months	1	1	1
C Over 3 months but no more than a year	1	1	1
Conventional stocks			
D Full coupon ⁽¹⁾ stocks with over a year but no more than 5 years to maturity	3	2	1
E Low coupon ⁽²⁾ stocks with over a year but no more than 5 years to maturity	3	3	1
F Stocks with over 5 years but no more than 10 years to maturity	5	2	2
G Stocks with over 10 years to maturity ⁽³⁾	7	2	2
Index-linked stocks			
H Stocks with over a year to maturity	6	—	2

(1) Stocks with a coupon of 5% or more.

(2) Stocks with a coupon of less than 5%.

(3) And stocks with no final redemption date.

Financial futures contracts will be included in the calculations as gilt-edged stocks of the relevant maturity. The Bank will in due course publish proposals for the treatment of traded options in gilt-edged in the position risk calculation.

(ii) Other sterling debt securities

18 Market makers in gilt-edged may deal in sterling fixed-interest or floating-rate stocks other than those issued or guaranteed by the British government. In the calculation of position risk they will simply be assimilated with gilts in the calculation explained above. (For this purpose, the maturity of floating-rate stocks will be taken as the period for which the interest rate is fixed.) In addition, the sum of the gross long position and the gross short position in these stocks will be added to the risk measure, in order to allow for their lower marketability and hence potentially greater price volatility. In order to avoid the need for unduly complicated reporting by market makers, offsetting of the kind described in paragraph 15 will not be allowed in respect of these stocks. The treatment of the credit risks arising from dealings in these stocks is described in Section B(b) below. Outstanding underwriting commitments will be treated as positions in the stock which has been underwritten.

(iii) Money-market dealings

19 The treatment of money-market assets and liabilities has two objectives:

- (i) to reflect the risks run by a market maker in borrowing the funds needed to finance a bull position in gilts, or in placing the funds generated by a bear position in gilts, at different maturities; and
- (ii) to ensure that a gilt-edged market maker using part of his capital to run a money book, ie borrowing overnight or at short maturity to finance a holding of money-market instruments, does so on the basis of a smaller maximum risk: capital ratio than the discount houses, who are the committed market makers in that field. This is the corollary to the more stringent capital requirements applying to discount houses in their gilt-edged dealings.

20 Against this background, the Bank's proposals as regards money-market assets and liabilities are as follows.

21 Approved money-market *assets*, ie sterling deposits with recognised banks, licensed deposit takers and building societies, holdings of sterling CDs issued by such institutions, and holdings of Treasury, local authority and eligible bank bills, will be treated in the same way as gilt-edged stocks in the calculation, except that gross holdings of such instruments having a residual maturity of more than one month will attract an additional weight of 1. A holding of over one-month money-market instruments financed by borrowing at less than one month's maturity would therefore attract a total weight of 3; a holding of under-one-month money-market

instruments similarly financed would attract a weight of 2 by virtue of Table 1 (column III, row A). Holdings of other money-market assets will be treated as deductions from capital.

22 *Borrowings of money* will be treated in the same way as bear positions in gilt-edged in the calculation of position risk according to the period for which the interest rate on the borrowing is fixed.

23 Tables 3 and 4 give examples of the working of the calculation taking account not only of gilt-edged positions but also of positions in other sterling debt securities, positions in money-market assets and financing positions. The Bank will in due course make proposals for the treatment of financial futures in the short sterling interest rate contract in the position risk calculation.

24 It would clearly be possible to add further refinements to this method of assessing position risk, with the objective of achieving greater precision, but to do so would be to add additional complexity. The proposed measure is already complex, and the Bank has considered whether it could be simplified. Even as it is, however, it reflects only the major elements of position risk identified by potential market makers in the Bank's bilateral discussions with them. It seems likely therefore that significant simplification could only be achieved by neglecting some important elements of risk.

25 The Bank recognises the danger that any formal measure of position risk exposure of the type described in this section could come to be regarded as sufficient in itself whether by the supervisor or by the supervised. It is therefore emphasised that the Bank itself will regard the calculation above only as a rough first indication of risk exposure and may in discussion with the market maker, in the light of the particular detail of the market maker's book, view the risk being run by the market maker as greater or less than the calculation suggests. Equally, the Bank would emphasise that the responsibility for risk assessment lies with the market maker himself, and that he should not regard the above calculation, *ipso facto*, as an adequate reflection of his total risk.

(b) Monitoring of credit risk

26 Market makers will be exposed to credit risks of a number of kinds, including the following:

- (i) the risk that, on an adverse price movement, a counterparty will fail to complete a transaction which he had previously agreed;
- (ii) the risk that, on an adverse price movement, a counterparty to whom the market maker has lent, or pledged as security, either money or stock, will fail to repay; and
- (iii) the risk that the price of a non-gilt-edged security in which the market maker has a position will be affected by changing perceptions of the creditworthiness of the borrower or by his ultimate inability to service the debt.

The Bank does not propose to attempt to embody an assessment of credit risk in the guideline calculation, but will include consideration of credit risk in its monitoring of overall risk exposure. For this purpose the Bank will wish to satisfy itself that gilt-edged market makers have adequate methods of identifying and controlling their exposure to risks of this kind.

27 In addition, the Bank proposes the following supplementary reporting requirements:

- (a) summary details of uncompleted transactions with individual counterparties which exceed in net amount outstanding the market maker's capital base, and full details of any transactions with an individual counterparty exceeding in total 10% of the capital base which have remained uncompleted for a period of three working days after the originally expected settlement date;
- (b) summary details of secured loans made by the market maker or assets pledged by him, other than to Stock Exchange money brokers, to be included within the totals for individual counterparties reported under (a) above (unsecured loans will be treated as deductions from capital—see Section A above);
- (c) summary details of a market maker's position (net long or short) in the liabilities of any individual issuer which exceeds 5% of the market maker's capital. For this purpose all entities whose liabilities are directly or indirectly the responsibility of a central entity will be regarded as a single borrower.

C The relationship between risk exposure and capital base

28 The Bank will in the normal course of events review the relationship between a market maker's risk exposure and his capital base, starting from the guideline calculation as described in the preceding section but also more generally, at the regular quarterly discussions. The Bank may at any time call for a special review with the market maker, and will in any case do so where the position risk exposure, on the basis of the calculation, reaches 100 times his capital base. In the light of such a review the Bank may set an absolute limit to the market maker's total risk exposure and/or require the market maker to reduce his risk exposure, or to increase his capital, over a period of time.

29 Tables 5 to 11 give some theoretical illustrations of alternative books that would be consistent with a risk exposure multiplier of 100 on a notional capital base of £10 million.

D Reporting

30 In some degree there is an inter-connection between the frequency of reporting and the acceptable relationship between risk exposure and capital, and the Bank's proposals below have been framed with this in mind. Whatever the arrangements, the reporting requirements will necessarily be very considerable, and the Bank will wish to discuss with market makers the possibilities for establishing direct computer links as a means of making the reporting less burdensome.

31 It is expected that the Bank will require the following reports:

- (i) Daily reports
 - (a) A stock-by-stock list of gross long and short positions in gilt-edged.
 - (b) The information on credit risk identified in Section B(b) above.
 - (c) Details of individual transactions with related companies and the outstanding balance at the end of the day.
- (ii) Weekly reports
 - (a) Summary details, by the identified maturity/coupon categories, of gross long and short positions in other sterling debt securities.
 - (b) Summary details, again by the identified categories, of gross long and short positions in money-market instruments.
 - (c) Summary details of sources and uses of finance.
 - (d) Turnover statistics (purchases and sales separately) by maturity category and type of counterparty.
 - (e) Risk: capital ratio—the highest figure during the preceding week.
- (iii) Monthly reports

Details of the capital base calculation as defined in Section A above. In addition, market makers will be required to report to the Bank immediately if their capital base should fall by more than 20% from the last reported level.
- (iv) Quarterly reports

Full balance sheet and profit and loss accounts.
- (v) Annual reports

Audited accounts.

Table 2
Example of working of risk calculation for gilt-edged position only

	Long	Short	Net position	Matched position	Risk calculation		
	1	2	3=(1)-(2)	4=smaller of (1) and (2)	I	II	III
Maturity band							
A Up to a month	10	0	+10	0	+10×0=0	10×0=0	0×2=0
B Over a month but no more than 3 months	70	50	+20	50	+20×1=+20	20×1=20	50×1=50
C Over 3 months but no more than a year	30	40	-10	30	-10×1=-10	10×1=10	30×1=30
Conventional stocks							
D Full coupon stocks with over a year but no more than 5 years to maturity	40	100	-60	40	-60×3=-180	60×2=120	40×1=40
E Low coupon stocks with over a year but no more than 5 years to maturity	20	10	+10	10	+10×3=+30	10×3=30	10×1=10
F Stocks with over 5 years but no more than 10 years to maturity	30	50	-20	30	-20×5=-100	20×2=40	30×2=60
G Stocks with over 10 years to maturity	70	90	-20	70	-20×7=-140	20×2=40	70×2=140
					Sub-total ⁽¹⁾	-380	
Index-linked stocks							
H Stocks with over a year to maturity	40	20	+20	20	+20×6=+120	—	20×2=40
	310	360	-50		500	260	370

Total position risk = 500+260+370 = 1,130

(1) Which is given a 'plus' sign.

Table 4
Working of position risk calculation—example 2

	(1) Long position				(2) Short position				(3) Total net position	(4) Matched position	Risk calculation			
	Gilts	Other £ fixed interest	Floating-rate instruments	Money-market instruments	Gilts	Other £ fixed interest	Floating-rate instruments	Money-market borrowings	(1)-(2)	smaller of (1) and (2)	I	II	III	
Maturity band														
Up to 1 month	0	0	0	0	0	0	0	80	- 80	0	-80×0=0	80×0=0	0×2=0	
Over 1 month-3 months	0	0	0	0	0	0	0	20	- 20	0	-20×1=-20	20×1=20	0×1=0	
Over 3 months-1 year	20	0	15	5	10	0	5	0	+ 25	15	+25×1=+25	25×1=25	15×1=15	
Conventional stocks														
Full coupon: over 1 year-5 years	70	5	—	—	30	5	—	—	+ 40	35	+40×3=+120	40×2=80	35×1=35	
Low coupon: over 1 year-5 years	20	0	—	—	30	0	—	—	- 10	20	-10×3=-30	10×3=30	20×1=20	
Over 5 years-10 years	100	20	—	—	40	15	—	—	+ 65	55	+65×5=+325	65×2=130	55×2=110	
Over 10 years	80	10	—	—	20	5	—	—	+ 65	25	+65×7=+455	65×2=130	25×2=50	
											Sub-total ⁽¹⁾	+875		
Index-linked stocks														
Over 1 year	30	0	—	—	10	—	—	—	+ 20	10	+20×6=+120	—	10×2=20	
Total position	<u>320</u>	<u>35</u>	<u>15</u>	<u>5</u>	<u>140</u>	<u>25</u>	<u>5</u>	<u>100</u>	<u>+105</u>		<u>995</u>	<u>415</u>	<u>250</u>	
											Total of I, II and III=1,660			

(1) Which is given a 'plus' sign.

Additions:	
Other fixed interest	+60
Floating-rate instruments	+20
Money-market instruments with maturity over 1 month	+ 5
	<u>+85</u>
Total position risk	<u>1,745</u>

Table 5
Long position in 1-5 year full-coupon gilt-edged stocks

	(1) Long position				(2) Short position				(3) Total net position	(4) Matched position	Risk calculation		
	Gilts	Other £ fixed interest	Floating- rate instruments	Money- market instruments	Gilts	Other £ fixed interest	Floating- rate instruments	Money- market borrowings	(1)-(2)	smaller of (1) and (2)	I	II	III
Maturity band													
Up to 1 month							190		-190		-190×0=0	190×0=0	
Over 1 month - 3 months													
Over 3 months - 1 year													
Conventional stocks													
Full coupon: over 1 year - 5 years	200								+200		+200×3=+600	200×2=400	
Low coupon: over 1 year - 5 years													
Over 5 years - 10 years													
Over 10 years													
											Sub total ⁽¹⁾	+600	
Index-linked stocks													
Over 1 year													
Total position	200						190		+10		600	400	0
											Total of I, II and III = 1,000		

(1) Which is given a 'plus' sign.

Additions:		
Other fixed interest		0
Floating-rate instruments		0
Money-market instruments with maturity over 1 month		0
		<u>0</u>
Total position risk		<u>1,000</u>
Capital base		10
Risk/capital base		100

Table 5A

Long position in 1-5 year full-coupon gilt-edged stocks with longer-term financing

	(1) Long position				(2) Short position				(3) Total net position	(4) Matched position	Risk calculation		
	Gilts	Other £ fixed interest	Floating-rate instruments	Money-market instruments	Gilts	Other £ fixed interest	Floating-rate instruments	Money-market borrowings	(1)-(2)	smaller of (1) and (2)	I	II	III
Maturity band													
Up to 1 month													
Over 1 month - 3 months							190	-190			-190×1=-190	190×1=190	
Over 3 months - 1 year													
Conventional stocks													
Full coupon: over 1 year - 5 years	200							+200			+200×3=+600	200×2=400	
Low coupon: over 1 year - 5 years													
Over 5 years - 10 years													
Over 10 years													
											Sub total ⁽¹⁾	+410	
Index-linked stocks													
Over 1 year													
Total position	200						190	+ 10			410	590	0
											Total of I, II and III=1,000		

(1) Which is given a 'plus' sign.

Additions:

Other fixed interest	0
Floating-rate instruments	0
Money-market instruments with maturity over 1 month	0
	0

Total position risk

Capital base	10
Risk/capital base	100

Table 7
Long position in over 10 year other £ fixed-interest stock

	(1) Long position				(2) Short position				(3) Total net position	(4) Matched position	Risk calculation		
	Gilts	Other £ fixed interest	Floating-rate instruments	Money-market instruments	Gilts	Other £ fixed interest	Floating-rate instruments	Money-market borrowings	(1)-(2)	smaller of (1) and (2)	I	II	III
Maturity band													
Up to 1 month							90		-90		-90×0=0	90×0=0	
Over 1 month-3 months													
Over 3 months-1 year													
Conventional stocks													
Full coupon: over 1 year-5 years													
Low coupon: over 1 year-5 years													
Over 5 years-10 years													
Over 10 years		100							+100		+100×7=+700	100×2=200	
											Sub total ⁽¹⁾	+700	
Index-linked stocks													
Over 1 year													
Total position		100					90		+10		700	200	0

(1) Which is given a 'plus' sign.

Additions:		
Other fixed interest	+100	
Floating-rate instruments	0	
Money-market instruments with maturity over 1 month	0	
		+100
Total position risk		1,000
Capital base		10
Risk/capital base		100

Table 8
Long position in index-linked gilt-edged stocks

	(1) Long position				(2) Short position				(3) Total net position	(4) Matched position	Risk calculation			
	Gilts	Other £ fixed interest	Floating-rate instruments	Money-market instruments	Gilts	Other £ fixed interest	Floating-rate instruments	Money-market borrowings	(1)-(2)	smaller of (1) and (2)	I	II	III	
Maturity band														
Up to 1 month							156		-156		-156×0=0	156×0=0		
Over 1 month - 3 months														
Over 3 months - 1 year														
Conventional stocks														
Full coupon: over 1 year - 5 years														
Low coupon: over 1 year - 5 years														
Over 5 years - 10 years														
Over 10 years														
Index-linked stocks														
Over 1 year	166								+166		+166×6=+996			
Total position	166						156		+ 10		996	0	0	
											Total of I, II and III=996			
Additions:														
											Other fixed interest	0		
											Floating-rate instruments	0		
											Money-market instruments with maturity over 1 month	0		
														0
											Total position risk			996
											Capital base			10
											Risk/capital base			100

(1) Which is given a 'plus' sign.

Table 9
Cross book in gilt-edged stocks

	(1) Long position				(2) Short position				(3) Total net position	(4) Matched position	Risk calculation		
	Gilts	Other £ fixed interest	Floating- rate instruments	Money- market instruments	Gilts	Other £ fixed interest	Floating- rate instruments	Money- market borrowings	(1)-(2)	smaller of (1) and (2)	I	II	III
Maturity band													
Up to 1 month				10					+10	0	+10×0=0	10×0=0	
Over 1 month- 3 months													
Over 3 months- 1 year	50				50				0	50			50×1=50
Conventional stocks													
Full coupon: over 1 year- 5 years	200				200				0	200			200×1=200
Low coupon: over 1 year- 5 years	50				50				0	50			50×1=50
Over 5 years- 10 years	150				150				0	150			150×2=300
Over 10 years	150				150				0	150			150×2=300
											Sub total ⁽¹⁾	0	
Index-linked stocks													
Over 1 year	50				50				0	50			50×2=100
Total position	<u>650</u>			<u>10</u>	<u>650</u>				<u>+10</u>		<u>0</u>	<u>0</u>	<u>1,000</u>
													Total of I, II and III=1,000

(1) Which is given a 'plus' sign.

Additions:	
Other fixed interest	0
Floating-rate instruments	0
Money-market instruments with maturity over 1 month	0
	<u>0</u>
Total position risk	<u>1,000</u>
Capital base	10
Risk/capital base	100

Table 11
Money book: 1-3 months

	(1) Long position				(2) Short position				(3) Total net position	(4) Matched position	Risk calculation		
	Gilts	Other £ fixed interest	Floating- rate instruments	Money- market instruments	Gilts	Other £ fixed interest	Floating- rate instruments	Money- market borrowings	(1)-(2)	smaller of (1) and (2)	I	II	III
Maturity band													
Up to 1 month							323		-323		-323×0=0	323×0=0	
Over 1 month - 3 months				333					+333		+333×1=+333	333×1=333	
Over 3 months - 1 year													
Conventional stocks													
Full coupon: over 1 year - 5 years													
Low coupon: over 1 year - 5 years													
Over 5 years - 10 years													
Over 10 years													
											Sub total ⁽¹⁾	+333	
Index-linked stocks													
Over 1 year													
Total position				333			323		+10		333	333	0
													Total of I, II and III=666

(1) Which is given a 'plus' sign.

Other fixed interest	0	
Floating-rate instruments	0	
Money-market instruments with maturity over 1 month	+333	
		+333
Total position risk		999
Capital base		10
Risk/capital base		100

Annex 2 Prudential supervision of Stock Exchange money brokers

1 This paper contains the Bank's proposals for the framework of prudential supervision that it will want to apply to Stock Exchange money brokers.

2 The main function of Stock Exchange money brokers will be, as now, to act as intermediaries in stock borrowing and lending, to lend funds to market makers running net long positions in stock and to take funds from market makers running net short positions in stock. These services are to be made available impartially to the market as a whole. The aim of the Bank's supervision will be to ensure as far as possible that money brokers do not conduct business on a scale disproportionate to their own funds and thereby endanger their ability to meet their obligations to their counterparties. No supervisory arrangements can wholly exclude the risk of default, however, and it must remain the responsibility of the counterparties to satisfy themselves as to the integrity of a money broker with whom they deal.

3 The Bank's prudential supervision will be based upon close familiarity with the management and business of each money broker, to be developed through regular quarterly bilateral discussions. It will be supported by continuous assessment of the scale of the money broker's business and exposure to risk, in relation to his capital resources freely available to meet losses, taking as a starting point the detailed guidelines set out below. These guidelines have been drawn up in the light of the Bank's discussions with the present Stock Exchange money brokers and of the prudential arrangements currently applied to discount houses. The Bank will welcome comments on these proposals, and may itself wish to propose modifications in the light of experience. The Bank's assessment of the money brokers' financial performance and balance sheets will not, however, be based mechanically on these guidelines, which it regards as simply a starting point for such assessment.

4 The Bank's prudential supervision as described in this paper will take the place of capital adequacy supervision by The Stock Exchange for Stock Exchange money brokers. As part of the Stock Exchange membership requirements, however, Stock Exchange money brokers will be required to send copies of the reports identified in paragraph 26 (iv) and (v) to The Stock Exchange. As indicated in the main paper, the Bank will liaise with The Stock Exchange and other regulatory authorities on regulatory matters, and may in this context exchange with

them other information necessary to the carrying out of their respective regulatory responsibilities.

5 The remainder of this paper is arranged as follows. Section A sets out the Bank's proposed requirements as regards the capital structure of the money-broking operation. Section B describes the proposed guidelines for measuring risk exposure. Section C describes the Bank's proposals for gearing, ie its proposed approach to the relationship between risk exposure and capital base. And Section D gives details of the regular reports that the Bank expects to require from money brokers.

A Capital structure and capital base

6 The Bank will want a money-broking entity to be insulated as far as possible from any adverse development in other parts of any group to which it may belong, and it will wish to discuss the intended group structure with prospective money brokers from this point of view. It will require money brokers to be separately established entities in the UK, with their own dedicated capital as defined (for market makers) in paragraphs 7 and 8 of Annex 1. Assurances will be sought from substantial shareholders that they accept ultimate responsibility for the money broker's liabilities. The activities of these entities may not go beyond money broking in gilt-edged and other securities,⁽¹⁾ dealing in approved money-market instruments,⁽²⁾ and inter-dealer broking, though they need not go beyond money broking alone. A money broker may not, without the agreement of the Bank, have as a partly or wholly-owned subsidiary any other entity operating in financial markets. The Bank will wish to be informed individually of all transactions between a money broker and any related entity, which the Bank would expect normally to be on an arm's length basis. Money brokers will not be permitted to take principal positions in gilt-edged except in the course of their money broking activity.

B Measurement of risk exposure

7 Two general kinds of risk will be run by money brokers:

- (i) *position risk* ie the risk of loss arising from changes in market prices of instruments which the money broker owns or in which he has a short position; and

(1) The term "money broking" is taken to include secured lending to market makers in the normal course of business.

(2) That is, Treasury, local authority and eligible bank bills and sterling deposits with and certificates of deposit issued by recognised banks, licensed deposit takers and building societies.

(ii) *credit risk* is the risk of loss arising from the failure of another party to meet previously agreed obligations.

8 The methods by which the Bank proposes, as a first approximation, to evaluate these risks are as follows:

(a) Measurement of position risk

9 The business of a money broker involves taking funds from market makers for on-lending in the money market when the market makers have a net short position in stock, and borrowing funds in the money market for on-lending to the market makers when the latter have a net long position in stock. The Bank will measure the risks involved in dealing in approved money-market instruments in the same way as it measures those risks when they are run by discount houses:^{(1) (2)} this means that the risk measurement will be based mainly on the money broker's assets rather than his liabilities. As a result, the money brokers' measured risk exposures will tend to be greater when the market makers have short positions in stock than when they have long positions. This reflects the additional position risk that money brokers run when they use funds generated by the market makers' net short position in stocks to buy money-market assets with a fixed term to maturity. Current practice is that when the money brokers borrow to finance net long positions in stock held by the market makers, they generally borrow overnight; if this practice were to change and the money brokers were to borrow for longer terms, the Bank would wish to review this aspect of the prudential arrangements.

10 Holdings of approved money-market assets will be weighted according to their residual term to maturity, as shown in Table 1. The Bank will in due course make proposals for the treatment of financial futures in the short sterling interest rate contract.

11 The Bank recognises the danger that any formal measure of risk exposure of the type described in this section could come to be regarded as sufficient in itself whether by the supervisor or the supervised. It is therefore emphasised that the Bank itself will regard the calculation only as a rough first indication of risk exposure and may in discussion with the money broker, in the light of the particular detail of the money broker's book, view the risk being run by the money broker as greater or less than the calculation suggests. Equally, the Bank would emphasise that the responsibility for risk assessment lies with the money broker himself, and that he should not regard the above calculation, *ipso facto*, as an adequate reflection of his total risk.

(b) Measurement of credit risk

12 The business of a money broker involves borrowing stock on a secured basis from stock lenders and on-lending it, also on a secured basis, to market makers. The money

broker may lend back to the market maker cash previously taken from him as security for a loan of stock; the money broker may take other stocks as security for such loans of cash.

13 The extent of the credit risks involved depends on the legal position of the money broker. The proposals in this paper are based on the assumptions that, under the terms of the contracts involved the money broker will have the right to dispose of the security he has taken in the event of a counterparty's failure, and that he will have a right of set-off if he has entered into more than one transaction with a particular counterparty.

14 It is also assumed that the money brokers take security in adequate amounts, adjusted frequently to reflect changing market prices, and of adequate quality. The Bank will keep these matters under regular review.

15 Moreover, the Bank will wish to satisfy itself that money brokers have adequate methods of identifying and controlling their exposure to credit risk.

16 On this basis the Bank proposes to measure the money broker's credit risk, as a first approximation, by reference to the following weights:

- (i) a weight of one eighth to be applied to the total of gilt-edged stock borrowed from stock lenders;
- (ii) a weight of one eighth to be applied to whichever is the greater of the total of gilt-edged stock lent to, or the total of such stock taken as security from, each market maker;
- (iii) a weight of one quarter to be applied to the total of equity or debt securities other than gilt-edged stock borrowed from stock lenders;
- (iv) a weight of one quarter to be applied to whichever is the greater of the total of equity or debt securities other than gilt-edged stock lent to, or the total of such stock taken as security from, each market maker.

The higher weights for money broking in securities other than gilt-edged reflect the fact that stock lending in such securities carries greater risks, because of the poorer liquidity and greater capital uncertainty of the securities involved.

17 Table 2 gives an example of the working of the risk calculations.

18 The measurement of risk derived using the weights described in paragraph 16 will give the Bank some information about the money broker's exposure to credit risk; but the Bank will require additional reports in order to enable it to assess the concentration of credit risk.

(1) This is on the assumption that stock lending and borrowing continues on a matched maturity basis (current practice is that stock is borrowed and lent overnight). If this practice were to change, the method of measurement would be subject to amendment.

(2) The risk: capital ratio will, however, be different from that specified for discount houses: for details see Section C below.

19 Specifically, the Bank will require daily reporting of summary details of outstanding loans of stock to the four largest counterparties, and monthly reporting of average stock borrowings over the previous month from the four stock lenders for whom this average is the largest. In addition, the Bank will require immediate reporting of any delay in completion of a previously-agreed transaction by a counterparty which had not been notified to and agreed in advance by the money broker.

C The relationship between risk exposure and capital base

20 The Bank will in the normal course of events review the relationship between a money broker's risk exposure and his capital base, starting from the guideline calculations as described in the preceding section but also more generally, at the regular quarterly discussions.

21 The Bank will expect that the ratio of the money broker's total risk exposure (taking credit risk and position risk together) to capital base will normally not exceed 33. This ratio is expected normally to be observed on a daily basis. The Bank however recognises that there may be occasional sharp peaks in the market demand to borrow stock and will at such times be prepared to accept a higher ratio, provided that on each such day it is notified of the likely excess by the money broker concerned before the close of business on the day in question.

22 The Bank may at any time call for a special review with the money broker, and will in any case do so where the money broker's risk exposure exceeds 33 times his capital base other than in the occasional circumstances described in the preceding paragraph. In the light of such a review the Bank may set an absolute limit to the money broker's total risk exposure and/or require the money broker to reduce his risk exposure, or to increase his capital, over a period of time.

23 These provisions mean that a money broker using part of his capital to run a money book—that is, borrowing overnight or at a short maturity in order to finance a holding of money-market instruments—will do so on the basis of a smaller maximum risk: capital ratio than the discount houses, who are the committed market makers in that field.

24 Tables 3 and 4 give theoretical illustrations of alternative books that would be consistent with a risk exposure multiplier of 33 on a notional capital base of £5 million.

D Reporting

25 The reporting requirements will be heavier than those in operation at present, and the Bank will wish to discuss with money brokers the possibilities for establishing direct computer links as a means of making the reporting less burdensome.

26 It is expected that the Bank will require the following reports:

- (i) Daily reports
 - (a) The daily information on credit risk and delays in completion identified in Section B(b) above (paragraph 19).
 - (b) Details of individual transactions with related entities and the outstanding balance at the end of the day.
- (ii) Weekly reports
 - (a) Summary details of stock borrowing and lending.
 - (b) Summary details of borrowings and holdings of money-market assets.
 - (c) Risk: capital ratio—the highest figure during the preceding week.
- (iii) Monthly reports
 - (a) Details of the capital base calculation as defined in Section A of Annex 1. In addition, money brokers will be required to report to the Bank immediately if their capital base should fall by more than 10% from the last reported level.
 - (b) The monthly information on credit risk identified in Section B(b) above (paragraph 19).
- (iv) Quarterly reports
 - Full balance sheet and profit and loss accounts.
- (v) Annual reports
 - Audited accounts.

Table 1
Proposed weights for calculating risk

(1) Risk Weight =1/8	(2) Risk Weight =1/4	(3) Risk Weight =1/3	(4) Risk Weight =2/3	(5) Risk Weight =1	(6) Risk Weight =2	(7) Risk Weight =3	(8) Risk Weight =5
Assets securing gilt-edged stock borrowed from stock lenders	Assets securing equity and non-gilt-edged debt securities borrowed from stock lenders	Deposits with Bank of England	Eligible bills: 7 days up to 1 month	Eligible bills: 1-3 months	Eligible bills: 3-6 months		
Secured loans of gilt-edged stock or cash to gilt-edged market makers	Secured loans of equity, non-gilt-edged debt securities or cash to market makers in these securities	Eligible bills up to 7 days	£ CDs: 7 days up to 1 month	£ CDs: 1-3 months	£ CDs: 3-12 months	£ CDs: 1-3 years	£ CDs over 3 years
		£ CDs up to 7 days	Deposits with/loans to banks, discount houses, LDTs or building societies: 7 days up to 1 month	Deposits with/loans to banks, discount houses, LDTs or building societies: 1-3 months			
		Deposits with/loans to banks, discount houses, LDTs or building societies up to 7 days					

Table 2
Example of working of risk calculation

				Total amount	Weight	Weighted total
				£ millions		
(i)	Stock borrowed from stock lenders					
	Gilt-edged			160	$\frac{1}{8}$	20
	Other			20	$\frac{1}{4}$	5
(ii)	Gilt-edged stock lent to and taken as security from market makers	Stock lent	Stock taken as security			
		£ millions	£ millions			
Market maker	A	20	40	40(a)	$\frac{1}{8}$	5
	B	60	70	70(a)	$\frac{1}{8}$	8 $\frac{1}{2}$
	C	50	10	50(a)	$\frac{1}{8}$	6 $\frac{1}{4}$
	D	30	0	30(a)	$\frac{1}{8}$	3 $\frac{1}{2}$
		160	120			
(iii)	Non-gilt-edged stock lent to and taken as security from market makers					
Market maker	A	0	5	5(a)		1 $\frac{1}{4}$
	B	5	10	10(a)	$\frac{1}{4}$	2 $\frac{1}{2}$
	C	10	10	10(a)	$\frac{1}{4}$	2 $\frac{1}{2}$
	D	5	5	5(a)	$\frac{1}{4}$	1 $\frac{1}{4}$
		20	30			
(iv)	Money book					
	Risk weight $\frac{1}{8}$			12	$\frac{1}{8}$	4
	Risk weight $\frac{1}{4}$			12	$\frac{1}{4}$	8
	Risk weight 1			5	1	5
	Risk weight 2			6	2	12
				Total risk exposure		85$\frac{1}{4}$
				Capital base		5
				Risk/capital base		17
				(Normal maximum)		33)

(a) Equals greater of stock lent and stock taken as security.

Table 3
Gilt-edged stock lending: no net lending or borrowing of money

				Total amount	Weight	Weighted total
				£ millions		
(i)	Stock borrowed from stock lenders					
	Gilt-edged			640	$\frac{1}{8}$	80
	Other					
(ii)	Gilt-edged stock lent to and taken as security from market makers	Stock lent	Stock taken as security			
		£ millions	£ millions			
Market maker	A	280	280	280(a)	$\frac{1}{8}$	35
	B	160	160	160(a)	$\frac{1}{8}$	20
	C	120	120	120(a)	$\frac{1}{8}$	15
	D	80	80	80(a)	$\frac{1}{8}$	10
		<hr/>	<hr/>			
		640	640			
(iii)	Non-gilt-edged stock lent to and taken as security from market makers					
Market maker	A			NONE		
	B					
	C					
	D					
(iv)	Money book					
	Risk weight $\frac{1}{3}$			5	1	5
	Risk weight $\frac{2}{3}$					
	Risk weight 1					
	Risk weight 2					
				Total risk exposure		<hr/> 165
				Capital base		5
				Risk/capital base		<hr/> 33

(a) Equals greater of stock lent and stock taken as security.

Table 4
Money book arising from market makers' short positions in gilt-edged

				Total amount	Weight	Weighted total
				£ millions		
(i)	Stock borrowed from stock lenders					
	Gilt-edged			520	$\frac{1}{8}$	65
	Other					
(ii)	Gilt-edged stock lent to and taken as security from market makers	Stock lent	Stock taken as security			
		£ millions	£ millions			
Market maker	A	220	180	220(a)	$\frac{1}{8}$	27 $\frac{1}{2}$
	B	180	160	180(a)	$\frac{1}{8}$	22 $\frac{1}{2}$
	C	80	60	80(a)	$\frac{1}{8}$	10
	D	40	30	40(a)	$\frac{1}{8}$	5
		<hr/>	<hr/>			
		520	430			
(iii)	Non-gilt-edged stock lent to and taken as security from market makers					
Market maker	A			NONE		
	B					
	C					
	D					
(iv)	Money book					
	Risk weight $\frac{1}{3}$			90	$\frac{1}{3}$	30
	Risk weight $\frac{2}{3}$					
	Risk weight 1			5	1	5
	Risk weight 2					
				Total risk exposure		<hr/> 165
				Capital base		5
				Risk/capital base		<hr/> 33

(a) Equals greater of stock lent and stock taken as security.

Annex 3

Prudential supervision of inter-dealer brokers in the gilt-edged market

1 This paper contains the Bank's proposals for the framework of prudential supervision that it will want to apply to inter-dealer brokers (IDBs).

2 The discussions which the Bank has been holding with various firms on the new structure of the gilt-edged market have indicated that there will be demand for IDBs to operate between the market makers, taking bids and offers for stock from market makers and disseminating them among the other market makers, as described in the main paper. The essential purpose of the IDBs will be to make it easier for the market makers to unwind stock positions that arise from their market-making activities with investors or their agents, and IDBs are likely thereby to make an important contribution to the overall liquidity of the market. These services are to be made available impartially to the market as a whole.

3 The aim of the Bank's supervision will be to ensure as far as possible that IDBs do not conduct business on a scale disproportionate to their own funds and thereby endanger their ability to meet their obligations to their counterparties. No supervisory arrangements can wholly exclude the risk of default, however, and it must remain the responsibility of the counterparties to satisfy themselves as to the integrity of an IDB with whom they deal.

4 The Bank's prudential supervision will be based upon close familiarity with the management and business of each IDB, to be developed through regular quarterly bilateral discussions. It will be supported by continuous assessment of the scale of the IDB's business in relation to its capital resources freely available to meet losses, taking as a starting point the detailed guidelines set out below. The Bank will welcome comments on these proposals, and may itself wish to propose modifications in the light of experience. The Bank's assessment of the IDBs' financial performance and balance sheets will not, however, be based mechanically on these guidelines, which it regards as simply a starting point for such assessment.

5 The Bank's prudential supervision as described in this paper will take the place of capital adequacy supervision by The Stock Exchange for IDBs. As part of the Stock Exchange membership requirements, however, IDBs will be required to send two copies of the reports identified in paragraph 15(iii) and (iv) to The Stock Exchange. As indicated in the main paper, the Bank will liaise with The Stock Exchange and other regulatory authorities on regulatory matters, and may in this context exchange with

them other information necessary to the carrying out of their respective regulatory responsibilities.

6 IDBs wishing to use closed-circuit screens as a means of communicating with the market makers may install their own equipment or they may use The Stock Exchange's Integrated Data Network (IDN) or a commercial service. In any of these cases, they will be required to allow the Stock Exchange authorities to have, for monitoring purposes, access to the prices and amounts they are quoting.

7 The remainder of this paper is arranged as follows. Section A sets out the Bank's proposed requirements as regards the capital structure of the IDBs. Section B describes the proposed guidelines for measuring risk exposure. Section C describes the Bank's proposals for gearing, ie its proposed approach to the relationship between risk exposure and capital base. And Section D gives details of the regular reports that the Bank expects to require from IDBs.

A Capital structure and capital base

8 The Bank will want an IDB to be insulated as far as possible from any adverse development in other parts of any group to which it may belong, and it will wish to discuss the intended group structure with prospective IDBs from this point of view. It will require IDBs to be separately established entities in the UK, with their own dedicated capital as defined (for market makers) in paragraphs 7 and 8 of Annex 1. Assurances will be sought from substantial shareholders that they accept ultimate responsibility for the IDB's liabilities. The activities of these entities may not go beyond inter-dealer broking in gilt-edged stocks and Stock Exchange money broking and associated dealing in money-market instruments, though they need not go beyond inter-dealer broking alone. An IDB may not, without the agreement of the Bank, have as a partly or wholly-owned subsidiary any other entity operating in financial markets. The Bank will wish to be informed individually of all transactions between an IDB and any related entity, which the Bank would expect normally to be on an arm's length basis.

9 On the assumption that the IDBs provide anonymity to inter-market maker transactions by not disclosing the name of either of the ultimate counterparties to the other, the Bank will expect them to accept the full responsibilities of a principal on both sides of each transaction. IDBs will not be permitted to take principal

positions in gilt-edged except in the course of this inter-dealer broking activity, including covering an exposure arising as a result of a misunderstanding or of non-delivery. IDBs will not be permitted to borrow stock.

B Measurement of risk exposure

10 Two general kinds of risk will be run by IDBs:

- (i) The risk of being held responsible for losses arising from adverse price movements following a misunderstanding with a market maker. In the event of such a misunderstanding, as a result of which the IDB has an accidental exposure, the IDB must immediately on discovery buy or sell stock as appropriate to eliminate the exposure.
- (ii) The risk that, on an adverse price movement, a counterparty fails to complete a transaction which he had previously agreed. Again, the IDB must immediately on discovery buy or sell stock as appropriate to eliminate any exposure that may arise.

11 The risks described in paragraph 10, by their nature, cannot be readily quantified, but as a first approximation it is reasonable to suppose that the degree of risk being run by an IDB will be proportional to his turnover. The Bank will wish to satisfy itself that IDBs have adequate methods of identifying and controlling these risks. In addition, the Bank will require immediate reporting of any differences arising as in paragraph 10(i) above where the loss to the IDB exceeded 10% of his capital, and of any delay in completion of a previously-agreed transaction by a counterparty which had not been notified to and agreed in advance by the IDB.

12 The Bank recognises the danger that any formal measure of risk exposure of the type described in this section could come to be regarded as sufficient in itself whether by the supervisor or the supervised. It is therefore emphasised that the Bank itself will regard turnover only as a rough first indication of risk exposure and may, in the light of the particular detail of the IDB's business, view the risk being run by the IDB as greater or less than the turnover measure suggests. Equally the Bank would emphasise that the responsibility for risk assessment lies with the IDB himself and that he should not regard turnover, *ipso facto*, as an adequate reflection of risk.

C The relationship between risk exposure and capital base

13 The Bank will in the normal course of events review the relationship between the IDB's risk exposure and his capital base, and will hold regular quarterly discussions with each IDB.

14 The Bank may at any time call for a special review with the IDB, and will in any case do so if daily turnover (counting both sides of each transaction separately) exceeds a multiple of 200 times the IDB's capital. In the light of such a review the Bank may set an absolute limit to the IDB's daily turnover and/or require the IDB to increase his capital over a period of time. The Bank however recognises that there may be occasional sharp peaks in the market demand for the IDBs' services and may at such times dispense with a special review if it is notified of the likely excess by the IDB concerned before the close of business on the day in question.

D Reporting

15 It is expected that the Bank will require the reports listed below. The Bank will wish to discuss with IDBs the possibilities for establishing direct computer links as a means of making the reporting less burdensome.

- (i) Daily reports
 - (a) Summary details of turnover.
 - (b) Information on differences and delays in completion as specified in paragraph 11.
 - (c) Details of individual transactions with related entities.
- (ii) Monthly reports
Capital base and details of its composition. In addition, IDBs will be required to report to the Bank immediately if their capital base should fall by more than 10% from the last reported level.
- (iii) Quarterly reports
Full balance sheet and profit/loss accounts.
- (iv) Annual reports
Audited accounts.