

GILT REPO CODE OF GUIDANCE

May 2008

This updated version of the Code comes into force with immediate effect

Copies are available from the Bank's website at www.bankofengland.co.uk.

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A. INTRODUCTION

1. The Gilt Repo Code ('the Code') has been drawn up jointly by the Securities Lending and Repo Committee (SLRC) and the Sterling Money Markets Liaison Group (MMLG)¹, two committees of market practitioners involved in the sterling repo and money markets. The Code sets out, for guidance, a summary of the basic procedures which UK-based participants in the gilt repo market observe as a matter of good practice. It is derived from current practices observed by leading participants in the repo market and will be kept under regular review.

2. The Code is an updated version of the Code issued in August 1998. It seeks to take account of the developments in the gilt repo market since then including the introduction of electronic broking services and of changes in central counterparty services.

3. A gilt repo is a transaction in which two parties agree that one will sell gilt-edged securities to the other and (at the same time and as part of the same transaction) commit to repurchase equivalent securities on a specified future date, or at call, at a specified price. A glossary of the terms used in repo markets is in Annex I of this Code. Annex II summarises the market conventions that apply in the gilt repo market. Annex III contains examples of calculations of gilt repo transactions.

Coverage of the Code

4. This Code is intended to apply to the full range of activity in gilt repo by all participants – i.e. by eligible counterparties, both principals making markets and trading in gilt repo and brokers intermediating in the gilt repo market; end-users, repoing gilts from their own portfolios, or undertaking reverse repos in gilt collateral; central counterparties/clearing houses involved in gilt repo; and agents (such as fund managers and custodians) undertaking repo business on behalf of their (principal)

¹ Annex IV list the bodies represented on the Securities Lending and Repo Committee and on the Sterling Money Markets Liaison Group.

clients. The Code applies to participants even when a function has been outsourced, for example to a custodian or operator of a tri-party service.

5. The Code does not, however, apply to repo transactions between market participants and central banks in their conduct of money market operations, as central banks have their own particular legal agreements and counterparty requirements for such operations.

6. All participants, including all relevant staff of participant firms, are expected to be familiar with and understand the Code. All participants and, as appropriate their agents or advisors, should undertake to refresh their understanding of the Code on at least an annual basis and ensure that new recruits to the market, including newly appointed trustees, are made aware of the existence of the Code and its relevance to their responsibilities.

7. This Code relates equally to repos whose principal aim is the borrowing or lending of money secured against gilt collateral including 'general collateral' repos and DBVs; and to repos whose principal aim is the borrowing or lending of specific gilt-edged issues against cash ('specials'). This Code uses 'repo' to mean both repo and reverse repo.

8. The Code does not in any way replace existing regulatory requirements or firms' internal systems of management control. Adherence to the Code should therefore not be regarded as affecting the need for all participants to observe existing UK or other regulatory requirements, and to satisfy themselves independently that adequate internal controls are being exercised over all aspects of their participation in the gilt repo market. The Code is not intended to override or conflict with the internal rules of individual settlement systems or central counterparties or broking platforms in respect of repo transactions.

9. Participants in the gilt repo market should also have regard to the European Repo Committee repo trading practice guidelines (see <http://www.icma-group.org/about1/international1/repo0.html>)

10. The Code has been written in plain English with the avoidance, where possible, of jargon, in order to be accessible to as wide a readership as possible.
11. The principles in this Code are also applicable to repo transactions in debt securities more generally.
12. Participants in the gilt repo market should also have regard to the Securities Borrowing and Lending Code of Guidance and its application to gilt-edged securities.
13. This version of the Code supersedes that agreed by the Committee in August 1998. It has been approved by the SLRC and the MMLG to come into immediate effect.

Terminology

14. The words ‘collateral’, ‘lending’, ‘borrowing’ and related expressions used in this Code reflect market terminology. The legal agreement recommended in Section H for use in gilt repo ensures under English law that full title to ‘collateral’, and to securities ‘borrowed’ or ‘lent’, passes from one party to another, the party obtaining title being obliged to deliver back equivalent collateral / securities.

Regulation

15. Any person who conducts gilt repo business in the United Kingdom would generally be carrying on a regulated activity in terms of the Financial Services and Markets Act 2000 (Regulated Activities) Order 2001 and therefore would have to be authorised and supervised under the Act unless an exclusion were applicable. Individuals involved in gilt repo may be subject to the FSA’s approved persons regime. Authorised persons participating in the gilt repo market would be subject to the provisions of the FSA Handbook; and they would also have to have regard to the market abuse provisions of the Financial Services and Markets Act 2000, the Market Abuse Regulations, and the related Code of Market Conduct issued by the FSA. The Conduct of Business Sourcebook may require a beneficial owner’s consent to the repo of gilts on its account. The FSA Handbook contains rules, guidance, and other

provisions relevant to the conduct of the firm concerned in meeting the FSA's High Level Standards.

16. The FSA has not endorsed individual codes of practice applying to inter-professional business that are in place in some markets. It will however, take into account the differing standards and practices operating in markets when interpreting its Principles for Business as they apply to inter-professional business. Further, non-compliance with those codes, or the Non-Investment Products Code in respect of certain non-authorisable activities, may raise issues such as the integrity or competence of a firm which are relevant to the threshold conditions (see COND 2.5.6 G (4)).

17. Repo business is also subject to regulation in other member states of the European Union given the general regulatory requirements of the Markets in Financial Instruments Directive (MiFID). Firms incorporated and authorised in one member state may conduct repo business in other member states under the passport arrangements.

Queries and complaints

18. Questions on this Code, or proposals for change or improvements, should be addressed to the Secretary to the Securities Lending and Repo Committee, c/o the Bank of England.

19. Neither the Bank nor the regulatory authorities are responsible for the enforcement of this Code, although participants may wish to make them aware of possible misconduct in the repo market. It will, of course, be for the regulatory authorities to consider what action, if any, they should take in response to such information. The Bank, the regulatory authorities, the SLRC and the MMLG cannot undertake to act as arbitrator in the event of disputes between participants.

B. STANDARDS

1 General standards

1.1 The United Kingdom's financial markets have a reputation for the professionalism of the firms that participate in them and of their employees. All participants in the gilt repo market have a common interest in maintaining this reputation. They also have a common interest in ensuring that the gilt repo market operates in a sound and orderly manner. To achieve these aims, it is essential that firms and their staff adopt prudent practices, act at all times with integrity, and observe the highest standards of market conduct. The following paragraphs cover aspects of this.

1.1.1 Participants should act with due skill, care and diligence; to this end, staff should be properly trained in the practices of the gilt repo market, including those of the infrastructure providers, and be familiar with this Code.

1.1.2 Participant should be fully familiar with, and comply with, the relevant regulatory requirements.

1.1.3 Participants must accept responsibility for the actions of their staff.

1.1.4 Eligible counterparties should pay particular attention to ensuring fair treatment for and between clients who are not also eligible counterparties where conflicts of interest cannot be avoided.

1.1.5 Participants in the gilt repo market should at all times treat the names of parties to transactions as confidential to the parties involved.

1.2 In order for the benefits from the gilt repo market to accrue generally to participants in the sterling markets, it is essential that behaviour in the gilt-edged securities or in gilt repo, whether intra-day or overnight or at longer maturities, does not distort the markets in these instruments (e.g. by limiting the availability of specific

securities). Market participants should therefore comply with the regulatory requirements on market abuse and on misleading statements and practices and also avoid any other actions or omissions which could cause any distortion in these markets, whether the investments are a specific investment (e.g. a specific gilt) or a wider class of investment (e.g. gilts in general) , including general collateral or DBVs.

1.3 Participants in the gilt repo market have a general responsibility to ensure that their activities do not cause market disruption through fails, or lead to reputational damage to the market. Although there are circumstances in which it is legitimate or necessary for a participant to take a naked (no securities borrow in place) short position, market participants are generally discouraged from selling a security short before they have put in place arrangements, whether in the gilt repo market or securities lending market or otherwise, to ensure that they will be able to fulfil their delivery obligations.

C. PRELIMINARY ISSUES

This section deals with issues which participants should address before undertaking activity in gilt repo. Participants should also review these matters regularly.

1. Participants should ensure that there are no legal obstacles to their undertaking gilt repo transactions and that, where appropriate, they have obtained any necessary permissions from their regulatory authorities.
2. Where a custodian or appointed lending agent (e.g. fund manager) plans to repo a client's securities, it is essential that it should have obtained the necessary authority for this activity from the client in a clear legal agreement. Such an agreement should set down the basis on which repo activity may be entered into and specify the collateral that may be taken. It may form part of the standard safe custody agreement.
3. Participants should ensure that they have adequate systems and controls for the business they intend to undertake. These should include the following:
 - (a) adequate internal controls to ensure that any transactions in gilt repo have been properly authorised before cash or stock is released;
 - (b) suitable procedures for drawing up and maintaining a list of those authorised to engage in repo transactions ;
 - (c) suitable credit risk control systems, which cover the risks arising from gilt repo transactions;
 - (d) clear and timely records, available to management, showing *inter alia* the value of collateral given/taken (in aggregate and by counterparty to enable accurate monitoring of credit risk);

- (e) adequate systems for ensuring on a timely basis both the valuation of collateral given and received and the appropriate recollateralisation of repo transactions;
 - (f) adequate documentation to cover the types of transactions that are to be undertaken;
 - (g) adequate systems to account, for tax purposes, for any manufactured dividends in accordance with the relevant regulations.
4. Participants should ensure that they have established, and fully understand, their tax position in relation to gilt repo transactions.
5. Before undertaking gilt repo transactions with a new counterparty, participants should ensure that they have agreed documentation, and have assured themselves of its effectiveness, particularly, for example, in respect of non-UK incorporated counterparties (see also Section F below); and that they have undertaken a rigorous credit assessment of the counterparty. Such credit assessments should be updated as necessary.
6. Before undertaking gilt repo with a counterparty, participants need to consider whether they would wish to depart from standard practice as set out, *inter alia*, in this Code and its Annex II on market conventions. Such matters would generally need to be agreed between counterparties at the time of each trade.

D. ELIGIBLE COUNTERPARTIES

Before dealing in gilt repo with a client for the first time, eligible counterparties should either confirm that the client is already aware of the Code and its key contents, or draw them to the client's attention. This section describes what needs to have been covered.

1. These participants should check whether the new client has a copy of this Code and if not, either send them a copy or advise them to refer to the Bank's website at www.bankofengland.co.uk.
2. These participants should inform the new client, if they are new to gilt repo, that the Code recommends that:
 - (a) transactions should be under the Gilt Repo Legal Agreement (see Section H below), or equivalent;
 - (b) transactions should be marked-to-market and recollateralised (see Section I below);
 - (c) collateral should be held independently from the repo counterparty (see Section J below);

and, if appropriate, should remind the client that it is for them to decide if they need to seek independent advice.

3. These participants should also inform the client that there could be tax consequences from entering into gilt repo transactions, in particular with regard to dividends and manufactured dividends, on which they might need to seek professional advice.

E. AGENTS

Annex IV of the Global Master Repurchase Agreement sets out how the agreement is varied where one party is acting as agent for a named principal.

This section deals with issues relevant where one of the parties to a gilt repo transaction is an agent (such as a fund manager).²

1. Participants in a gilt repo transaction should ensure that they are clear whether the capacity in which their counterparty is acting is as principal or agent.
2. Where a participant is acting as an agent, the identity of the client who is the principal on whom the risk is taken should be established by the agent before the deal is done and also, at least by means of an agreed identification code, conveyed to the other participant.
3. Where a participant is acting as an agent for more than one principal, the agent needs a clear system for ensuring that each transaction is entered into, and any substitution or mark-to-market adjustment of collateral is made, on behalf of a particular principal whose identity has been determined and recorded.
4. An agent must obtain the necessary prior written authority from the beneficial owners of the cash and securities or from a party suitably authorised by the beneficial owners to undertake gilt repos; this should cover the basis on which such repos may be carried out, and the collateral that may be taken.
5. An agent should make regular reports to clients, providing them with a full explanation of the gilt repo activity carried out on their behalf.

² Those dealing with, or acting as, agents are recommended to study the Financial Law Panel's "Fund Management and Market Transactions, A Practice Recommendation".

F. NAME-PASSING BROKERS

As well as dealing direct, participants may also wish to trade through broking intermediaries, colloquially known as ‘voice’ or ‘electronic’.

There are two types of intermediary: a) matched principals acting in this capacity as principals; and b) name-passing brokers. This section deals with those matters which are particularly relevant to gilt repo business involving name-passing brokers.³

1. Name-passing brokers in gilt repo should:
 - (a) not act as principal to a deal;
 - (b) only quote firm prices substantiated by another market participant;
 - (c) only receive payment for successfully bringing counterparties together in the form of brokerage, which is freely negotiated; and
 - (d) pass the names immediately, when a bid is ‘hit’ or an offer ‘lifted’.

2. A name-passing broker acts in an arranging role distributing quotes to the participants. Prior to trading the participant’s name remains anonymous. At the point of trade the participants’ names are disclosed to one another and assuming each party has a credit line for the other the transaction is executed. At this stage the role of the name-passing broker ends unless there is a trade query.

3. Some name-passing brokers also provide screens showing indicative prices but these screens do not permit trading. In order to execute a trade at a rate shown on a screen a dealer must telephone the name passing broker.

³ Subject to any supervisory restrictions, a broker may act both in name-passing and a matched principal capacity in repo, always provided that the nature of the broker’s role is apparent at all times to the clients.

4. While principals and brokers share equal responsibility for maintaining confidentiality, name-passing brokers must exercise particular care. They should ensure that the identity of parties to a transaction is disclosed only after the bid is 'hit' or offer 'lifted'.

5. Participants may also wish to deal via intermediaries who provide automated trading systems⁴ which enable them to trade gilt repo in an automated manner placing bids and offers or executing trades via an electronic front end. These prices are firm and executable in the size shown. For those gilt repo trades that are centrally cleared details are sent immediately to the central clearing counterparty and are copied to each participant to the transaction. For those gilt repo trades that are to be settled bilaterally, at the point of trade the parties to the trade are disclosed to one another and the participants have the right to accept or reject the transaction. A trade may only be rejected on credit or legal grounds. Upon execution, trades are immediately sent to the settlement depository and are copied to each participant to the trade. At this stage the role of the multilateral trading facility ends.

⁴ These are known and regulated as Multilateral Trading Facilities.

G. CENTRAL COUNTERPARTIES/CLEARING HOUSES

1. In clearing a trade, a clearing house becomes counterpart to, and responsible for the corresponding trade obligations arising from the trade. Risk management of the trade is subsequently effected bilaterally between the clearing house and each of the trading counterparties. Such clearing houses may provide clearing for cash and repo trades in specific gilt collateral and DBV.
2. The practice of such a clearing house is to protect itself from credit and market risks by the taking of initial margin from both sides to a trade and by daily exposure calculations, on a marked-to-market basis and maintenance margin calls. All positions are marked-to-market on a daily basis and maintenance margin is then called as necessary. Margin cover may be provided in cash, bank guarantees or securities.
3. A market participant, before seeking to use a central counterparty, should consider the clearing house's financial position, its range of services, its membership criteria, its operational mechanisms and timetables, and its margin requirements, as well as its own operational capacity to trade through the central counterparty.
4. A clearing house operating in the United Kingdom may be a Recognised Clearing House in terms of the Financial Services and Markets Act 2000.

H. LEGAL AGREEMENT

1. Gilt repo transactions should be subject to a legal agreement between the two participants concerned. A market standard for gilt repo was developed as the PSA/ISMA Global Master Repurchase Agreement ('GMRA') together with the Gilts Annex published by ICMA and SIFMA. The GMRA was drafted with a view to compliance with English law and UK regulatory provisions, and covers the matters which a legal agreement ought to include for principal to principal repo transactions and for repo transactions where one party is acting as agent for an underlying principal. The GMRA and as supplemented for gilt repo by the Gilts Annex is referred to in this Code as the 'Gilt Repo Legal Agreement'.
2. Members of ICMA and SIFMA are able to benefit from the exercise that ICMA and SIFMA conducts annually on the enforceability of the netting and close-out provisions of the GMRA (GMRA 2000, GMRA 1995 and GMRA as amended by the Amendment Agreement) for numerous jurisdictions worldwide. Participants in the gilt repo market that are not members of ICMA or SIFMA will have to obtain legal opinions from the associations or from their own sources.
3. Participants in the gilt repo market are strongly recommended to adopt the Gilt Repo Legal Agreement (subject to legal confirmation of its effectiveness, if the specific circumstances in which it is to be used are not straightforward).
4. Other forms of legal agreement, including variations of the Gilt Repo Legal Agreement, may also be effective. It is stressed that in whatever form a gilt repo transaction takes (e.g. including buy/sellback), it is highly desirable, and strongly in the interests of both parties, that all transactions are conducted under an appropriate legal agreement.
5. The matters which the Gilt Repo Legal Agreement would normally cover include:

- i) The agreement should provide for the absolute transfer of title to securities (including any securities transferred through substitution or mark-to-market adjustment of collateral).
- ii) The agreement should provide for daily marking-to-market of transactions.
- iii) The agreement should provide for appropriate initial margin or 'haircut' and for the maintenance of margin whenever the mark-to-market reveals a material change of value.
- iv) The agreement should specify clearly the events of default and the consequential rights and obligations of the counterparties.
- v) The agreement should provide, in the event of default, for close-out and full set-off of claims between the counterparties.
- vi) The agreement should also include provisions clarifying the rights of the parties regarding substitution of collateral and the treatment of coupon and interest payments in respect of securities subject to it, including, for example, the timing of any payments.
- vii) The agreement should be subject to English law.

6. Central banks' official money market operations in the form of repo are conducted under bespoke legal documentation and not standard documentation used by the gilt repo market at large. The Documentation for the Bank of England's operations under the Sterling Monetary Framework is available on the Bank's website: <http://www.bankofengland.co.uk/markets/money/documentation/index.htm>.

7. Participants that utilise brokers or agents should also ensure that they have suitable legal agreements with such parties which establish clearly their respective roles and responsibilities.

I. MARGIN

Gilt repo transactions which are properly structured and under a sound legal agreement inherently involve less credit risk than unsecured loans or undocumented buy/sellbacks. Nevertheless, there is a residual credit risk. This section is concerned with how this risk should be managed.

1. Participants in gilt repo should negotiate suitable initial margin, reflecting both their assessment of their counterparty's creditworthiness and the market risks (e.g. duration of collateral) involved in the transaction.
2. Repo transactions should be marked-to-market on a daily basis (and participants should consider the need to do so within the day if there has been a large market movement). Such valuations should include both interest accrued on the cash and coupon accrued on the securities outstanding; they should also take account of any coupon which becomes payable to the holder of collateral which passes its ex-dividend date during the life of the repo.
3. It is an essential protection⁵ for participants in gilt repo transactions that whenever a mark-to-market valuation reveals a material exposure to their counterparty, over and above any agreed initial margin or 'haircut', they should ensure cash or collateral is moved in order to eliminate the exposure and restore the initial position. What is 'material' is itself a credit judgement. The degree of exposure which a counterparty would regard as material, and which would trigger remargining, should be agreed in advance with the other counterparty. (To note, this includes the possibility of the two parties agreeing to daily remargining, or even intra-day margining, irrespective of the size of the exposure that had arisen.)
4. Participants in gilt repo transactions should monitor their net exposure to their counterparties on at least a daily basis.

⁵ In some cases parties may agree a bilateral credit line as an alternative to margining

5. Participants should integrate any exposures on gilt repo into their credit risk control systems. These should ensure, inter alia, that appropriate exposure limits are established and reviewed on a regular basis for all counterparties.
6. Participants should set up appropriate custody arrangements for collateral (Section J).
7. Participants should minimise daylight and settlement exposure by settling gilt repo transactions, including the substitution of collateral, through DVP settlement systems, such as that offered in CREST, and including the CREST DBV and RPO functionalities.
8. Margin arrangements for central counterparties are described in section G.

J. CUSTODY

Custody is an important aspect of gilt repo. Taking possession of the collateral or using a third party custodian removes one important potential element of the counterparty credit risks involved with gilt repo – that, while in possession of the collateral, the other counterparty defaults and that ownership of the collateral subsequently cannot be proven because of administrative error or fraud. This section covers this and other issues relating to custody.

1. Clients need to ensure that repo transactions are identified as such to their custodian.
2. Collateral including, where relevant, margin and remargin, should be delivered to the account of the counterparty or his agent or a designated third party.
3. Where a participant is acting through an agent, there should be an agreed arrangement between the agent and that participant for the safeguarding of collateral, ensuring the correct title to the delivered gilts, and the allocation of any earnings on that collateral.

K. DEFAULT AND CLOSE-OUT

This section covers issues which arise when a participant is in a position to exercise the right to declare a counterparty in default under a master agreement and close out its outstanding repo transactions.

1. A participant should have systems in place to enable the prompt identification of circumstances which are events of default, or in which it would be entitled to give a default notice to the counterparty.
2. A participant should have systems in place for decisions on whether to give a notice of default or on how to deal with events of default to be taken by staff of suitable seniority and authority.
3. The decision to declare a default is a major one. Senior management of any participant faced with this decision should weigh carefully whether the event which triggers the right requires such action, or is a technical problem which can be resolved in other ways.
4. Once a decision to declare a default has been taken, it is important, in the interests of the participant, the defaulting party and the market, that the process be carried out carefully. In particular:
 - (a) the non-defaulting party should do everything within its power to ensure that the default market values used in the close-out calculations are, and can be shown to be, fair; and
 - (b) if the non-defaulting party decides to buy or sell securities consequent to the close-out, it should make every effort to do so without unnecessarily disrupting the market.

L. CONFIRMATION AND OTHER ISSUES

1. As all those active in financial markets are aware, confirmation and settlement are crucial aspects of any trading operation. This section covers aspects of the former, together with some other related issues arising with gilt repo transactions.

2. In recent years the use of traditional confirmations has changed with the development of electronic matching capability in systems. The key consideration is that the substance of confirmation is delivered whether by a traditional confirmation or by an alternative such as matching.

3. Participants should consider the confirmation provisions in the Gilt Repo Legal Agreement and ensure that appropriate confirmation arrangements are agreed.

4. Eligible counterparties should ensure that a faxed written or electronic confirmation covering both legs of a gilt repo transaction is issued. This confirmation should cover the items set out in paragraph 3 of the GMRA. Confirmations should, whenever possible, be issued on the day of trade.

5. Where material changes, such as margin calls or substitutions of stock, occur during the life of a repo transaction, these should also be confirmed, although in these cases it is sufficient for the change alone to be confirmed. Where appropriate, this may be done via a cross reference to the original repo. Eligible counterparties should also consider whether to confirm rate changes on open repo transactions.

6. Participants should ensure that any confirmations they receive are checked carefully as soon as possible, normally on the day of receipt, and that any queries on their terms are promptly conveyed back to their counterparty.

7. Participants undertaking repo in general collateral should, at the time of the trade, confirm whether the trade is against DBVs or specific collateral. If against DBVs, participants should on a timely basis, establish and confirm with their counterparty the DBV option to be used; and if against specific collateral, they should establish the precise nature of the collateral. The same applies when collateral is

substituted (although confirmations need not be provided in relation to substitutions or revaluations where a counterparty does not require them). The market convention for specifying the details of general collateral is set out in Section 4 of Annex II to this Code.

8. Participants should consider whether any events relating to any gilt which they intend to include in a repo transaction will occur during the life of the repo transaction. Such events include payment dates on partly-paid gilts and conversion options. If so, they should seek the agreement of the other party to the inclusion of that gilt in the repo transaction and also agree between themselves, as necessary, how the event is to be handled. Participants should be aware that where such events occur during the life of a repo transaction, they may give rise to additional credit risks which need to be considered (see Section H). This is also the case, for example, with a repo transaction across an ex-dividend date which will create an unsecured credit exposure to the other counterparty where the repo transaction matures during the ex-dividend period.

ANNEX I

GLOSSARY OF TERMS IN GILT REPO

This glossary explains the meaning of various terms commonly used in the gilt repo market. The same terms are often also used, with the same meaning, in other similar markets such as secured lending. It should be stressed that these explanations are only of market usage, and do not purport to be legal definitions.

Agent: The Gilt Repo Code uses the term agent to cover participants in the gilt repo market, such as fund managers and custodians, who undertake repo transactions on behalf of (principal) clients.

All-in price: See ‘dirty price’.

Bank of England Documentation: Documentation for the Bank of England’s Operations under the Sterling Monetary Framework. This documentation provides the main legal framework for the Bank’s open market operations, for the use of the Bank’s standing facilities, and for access to reserves accounts. Open market operations include term repo operations and the standing lending facility involves overnight repo operations. The Bank proposes also to conduct open market operations in the form of foreign currency asset purchases and swaps. These will be underpinned by the Documentation and the Bank’s ISDA Agreement.

Broker (in gilt repo): An intermediary who brokes gilt repo, either on a matched principal or name-passing basis.

Cash-driven repo transactions: Transactions, normally involving a round amount of cash, the motivation for which lies in investing cash through a repo against gilts.

Close out and repricing: One of the ways of eliminating any mark-to-market exposure arising in a repo.

Closing leg: A repo involves a pair of trades in the same security – one for a near value date, the other for a value date further into the future. The closing leg refers to the second of these. It is also called the far, second, or reverse leg. See also ‘opening leg’.

Collateral: A general term used in the market to cover any securities exchanged in a repo transaction both initially and subsequently during the period before the repo terminates. Under the Gilt Repo Legal Agreement, full title to collateral passes from one party to the other, the party obtaining title being obliged to deliver back equivalent securities. The term is used to cover both the purchased securities and any margin securities that are subsequently passed.

Concentration limit: An optional functionality in CREST which allows the receiver of securities via DBVs to ensure that no individual security makes up more than 10% of the overall collateral value received.

CREST reference prices: Daily prices of gilt-edged and other securities held in CREST, which are used by CREST in various processes, including revaluing stock loan transactions, recalculating collateralised debit cap availability and DBV assembly. For gilts and Treasury Bills, the prices are calculated and sent to CREST by the DMO and are available to the market late in the afternoon.

Day Count: The convention used to calculate accrued interest on gilts and interest on cash. For gilts the convention is actual/actual. For cash, the convention is actual/365.

Delivery versus payment (DVP): The simultaneous exchange of securities and cash.

Dirty price: The price of a gilt-edged security including accrued interest. Also known as the ‘all-in’ price.

Eligible counterparties: The term defined in MiFID which replaces ‘Market Professionals’ and which is one of the three categories of client under MiFID. The other two categories are professional clients and retail clients.

Equivalent securities: A term used in repo to denote that the securities returned must be of the identical issue (and tranche, where relevant) and nominal value to those repoed. A precise definition of equivalence is contained in the Gilt Repo Legal Agreement.

Ex-Dividend (xd) date: The record date for the payment of coupons. The coupon payment will be made to the person who is the registered holder of the stock on the xd date. For most gilts, this is seven working days before the payment day.

Flat basis: A repo on which the initial margin (or haircut) is zero.

General collateral (GC): Securities, which are not ‘special’, used as collateral against cash borrowing. In the gilts market, GC includes DBVs, although, when DBVs are to be involved, this should be made clear at the time of transaction. Precisely what is acceptable in the gilt repo market as GC is set out in Annex II on market conventions.

Gilt DBV (delivery by value): A mechanism whereby a CREST member may borrow money from or lend money to another CREST member against overnight gilt collateral. The collateral eligible for inclusion within DBVs covers the full range of eligible gilts in CREST. The CREST System automatically selects and delivers securities to a specified aggregate value on the basis of the previous night’s CREST Reference Prices; equivalent securities are returned the following business day. The DBV functionality allows the giver and taker of collateral to specify the classes of security to be included within the DBV. A series of DBV repos may be constructed to form an ‘open’ or ‘term’ DBV repo. The DBV functionality allows repo interest to be automatically calculated and paid. Further information on the DBV service can be obtained from Euroclear UK & Ireland.

Gilt Repo Code of Guidance: The Gilt Repo Code sets out standards of good practice for gilt repo. The Securities Lending and Repo Committee and the Sterling Money Markets Liaison Group will seek to ensure that it continues to represent good practice. Copies of the Gilt Repo Code are obtainable on the Bank of England’s website at www.bankofengland.co.uk.

Gilt Repo Legal Agreement: The 2000 Global Master Repurchase Agreement as supplemented for gilt repo by the Gilts Annex. Its use in gilt repo transactions is recommended by the Gilt Repo Code (subject to legal confirmation of its effectiveness, if the specific circumstances in which it is to be used are not straightforward).

Global Master Repurchase Agreement ('GMRA'): Developed jointly by PSA (now SIFMA) and ISMA (now ICMA), this is the market standard repo document used in non-dollar markets. The current edition was issued in October 2000. The Gilt Repo Legal Agreement is an amended version of the revised edition including the Gilts Annex, designed to meet the needs of the gilt repo market.

ICMA: International Capital Market Association. This was formed in July 2005 from the merger of the International Securities Market Association (ISMA) and the International Primary Market Association (IPMA).

Initial margin: The excess either of cash over the value of securities, or of the value of securities over cash in a repo transaction, at the time it is executed and, subsequently, after margin calls. Also called the 'haircut'.

ISMA: The International Securities Market Association. This association drew up, with the PSA (now SIFMA), the PSA/ISMA Global Master Repurchase Agreement as it was then called. On 1 July 2005 ISMA merged with the International Primary Market Association (IPMA) to form the International Capital Market Association (ICMA).

Maintenance margin: The band, agreed between the parties to a repo transaction at the outset, within which the value of collateral may fluctuate before triggering a right to call for cash or securities to reinstate the initial margin or 'haircut' on the repo transaction.

Manufactured dividend: The payment (of an amount equal to the gross coupon on the securities concerned) which the acquirer of securities in a repo is generally

contractually obliged to make to the other party when the acquirer receives a coupon on a security which passes its ex-dividend date during the course of the repo.

Margin call: A request, following the mark-to-market of a repo transaction, for the initial margin to be reinstated, or where no initial margin has been taken, to restore the cash/securities ratio to parity.

Margin ratio: A term used in Gilt Repo Legal Agreement, which means with respect to a repo transaction the market value of the purchased securities at the time the transaction was entered into divided by the purchase price or such other proportion as the parties may agree with respect to that transaction.

Mark-to-market: In repo transactions, the act of revaluing securities to current market values (and taking account of accruals of interest). Such revaluations should include both coupon accrued on the securities outstanding and interest accrued on the cash; it should also take account of any coupon which becomes payable to the holder of collateral which passes its ex-dividend date during the life of the repo.

Matched book: This refers to the matching by a repo trader of securities repoed in and out. It carries no implication that the trader's position is 'matched' in terms of exposure, e.g. to short term interest rates.

Open DBV repo: An open repo transaction with DBV collateral.

Opening leg: A repo involves a pair of trades in the same security – one for a near value date, the other for a value date further into the future. The opening leg refers to the first of these. It is also called the first, near, or onside leg. See also 'closing leg'.

Open repo: A repo trade with no fixed maturity date, with the possibility, daily, of terminating the repo (see 'recall'), or refixing its terms/substituting collateral.

Overcollateralisation: The extent by which the collateral provided exceeds the agreed level of initial margin.

Pair-Off: The netting of consideration and securities in the settlement of two trades (one buy, one sell) in the same security for the same value date to allow settlement only of the net differences.

Price Differential: A term used and defined in the Gilt Repo Legal Agreement to describe the accrued return on the cash involved in a repo.

PSA: The Public Securities Association. A US-based association which developed the market standard documentation for repo in the US domestic market, and which developed with ISMA the PSA/ISMA Global Master Repurchase Agreement. Its name was changed to The Bond Market Association and more recently to The Securities Industry and Financial Markets Association.

Recall: Where the repo is an open transaction, a request to return repoed securities.

Recognised Clearing House: A clearing house which meets the requirements for recognition under the Financial Services and Markets Act 2000 and is approved by the Financial Services Authority (FSA).

Repo: A transaction, carried out under an agreement, in which one party sells securities to another, and at the same time and as part of the same transaction, commits to repurchase equivalent securities on a specified future date, or at call, at a specified price. The term is often used generically to cover both repos and reverse repos.

Repo rate: The return earned on a repo transaction expressed as an interest rate on the cash side of the transaction.

Repo (reverse to repo) to maturity: A repo or reverse repo where the security repoed matures on the same day as the closing leg.

Repricing: The act of marking-to-market and consequent adjustments.

Reverse repo: A reverse repo is a repo transaction as seen from the point of view of the party who is buying the securities. Thus, in a reverse repo transaction, one party buys securities from the other and, at the same time and as part of the same transaction, commits to resell equivalent securities on a specified date, or at call, at a specified price.

Right of substitution: The right to substitute equivalent collateral during the life of the repo.

Roll: To renew a repo trade at its maturity.

Securities Lending and Repo Committee (SLRC): A committee of market practitioners in securities lending, chaired by the Bank of England. The Committee is responsible for the SLRC Securities Borrowing and Lending Code of Guidance as well as with the Sterling Money Market Liaison Group for the Gilt Repo Code of Guidance.

Specials: Securities which, for any reason, are sought after in the repo market, thereby enabling cash to be borrowed at a lower rate.

Sterling Money Markets Liaison Group: a committee of market practitioners in the sterling money markets and representatives from trade associations and the authorities, chaired by the Bank of England. It provides a forum for the discussion of structural issues concerning the sterling money markets. It is jointly responsible with the SLRC for producing the Gilt Repo Code.

Strips: Zero coupon bonds which are produced by separating a standard coupon-bearing bond into its constituent principal and interest components. The separation process is known as 'stripping'. The process of recombining the constituent parts of a gilt is called a 'reconstitution'.

Substitution: See 'right of substitution'.

Term repo: Repo trades (of a maturity over one day) with a fixed end or maturity date.

Term DBV repo: A term repo using DBV collateral. This entails daily rollovers of the DBV.

Tri-party repo: Repos in which an independent agent (bank or clearing house) oversees a standard two-party repo transaction. The responsibilities of the tri-party agent include maintaining acceptable and adequate collateral and overall maintenance of the outstanding repo trades.

ANNEX II

CONVENTIONS FOR THE GILT REPO MARKET

This annex sets out the conventions which operate in the gilt repo market. There are good reasons for preferring the approach set out below over other approaches – over and above the convenience to all market participants of the reduction in confusion and complexity which a market-wide approach delivers. Nevertheless, these conventions may not be appropriate to specific counterparties or circumstances. Where, after due consideration, a participant considers any convention is not appropriate, they should reach agreement with their counterparty either prior to commencing any trading (and reflect this agreement in the legal documentation or otherwise) or at the time of each trade.

These conventions will be kept under review by the Securities Lending and Repo Committee. Any developments relating to the conventions should be reported please to the SLRC secretary.

1. Matters to be covered before trading with a new counterparty

Various sections of the Code refer to matters specifically relating to repo which need to be considered before starting to trade in repo with a new counterparty, including, for eligible counterparties, checking whether the client has a copy of the Code etc (Section D), agreeing legal documentation (Section H), assessing the credit risks of the counterparty within the participant's credit risk control framework (Section C), and as part of confirming settlement arrangements, checking that the counterparty has, directly or indirectly, an appropriate account.

In addition, there are other practice details which need to be agreed before trading begins. Some of these should be reflected in the legal agreement (see Annex I to the SIFMA/ICMA Global Master Repurchase Agreement). If not agreed at that stage, they will need to be referred to at the point of trade.

These additional matters include:

- the level of the initial margin or haircut, if any (participants may decide that this would vary from trade to trade, depending on the collateral given);
- the maintenance margin to be applied (participants may decide that this should be zero – see Section I);
- attitudes to substitutions of securities. The Gilt Repo Legal Agreement provides for substitutions only where both parties agree to do so. Substitution rights are agreed at the point of trade. However, a number of counterparties have adopted an amendment to the GMRA retaining full substitution rights for the seller in term repo transactions and providing for the buyer to be compensated;
- attitudes to ‘event’ stocks in GC transactions;
- any departures from standard practice, e.g. on deadlines for same day terminations of open repos, margin calls and substitutions;
- any restrictions on types of collateral that could be provided in order to meet margin calls;
- the basis for determining the rate of interest to be paid on any cash provided in order to meet margin calls;
- the source of prices for marking-to-market and calculating margin calls;
- the base currency and source of exchange rates if required;
- the method to be adopted for remargining (e.g. whether margin transfers to close-out and repricing);

- whether the 10% concentration limit for DBVs is to be used (the market norm is that no concentration limit should be applied);
- whether or not partial deliveries are acceptable;
- the designated offices of the two parties – ie the offices/branches in respect of which the agreement is concluded.

The Gilt Repo Legal Agreement uses the term ‘margin ratio’, rather than initial margin. The margin ratio is defined as the ratio of the market price of the securities to the purchase price (ie, the market price as adjusted for any initial margin). Thus, where the repoer of stock gives initial margin of, for example, 2.5% this would be expressed as a margin ratio of 1.025 (or 102.5%); however, where the provider of cash gives initial margin of 2.5%, this would be expressed as a margin ratio of $1/1.025$, ie 0.9756 (or 97.56%).

2. Information to be exchanged at a point of trade

The following matters should be agreed at the point of trade as a matter of course:

- collateral (including whether DBVs) – if the details of general collateral are to be confirmed subsequently (see the provisions of Section 4 below), counterparties should agree when details will be provided, and whether there are any restrictions on acceptability, e.g. type, maturity, minimum sizes of items, maximum number of items, attitude to inclusion of stocks with ‘events’; if the collateral is in the form of DBVs, then the option to be used should be specified, including whether a concentration limit is to be applied;
- nominal amount of cash equivalent;
- period (near and, for term repo, far leg value dates);
- rate;

- purchase price;
- means of settlement;
- whether interest payments for DBV repos are to be made through CREST or outside the system (assumed to be within CREST for overnight unless agreed otherwise; there is no such assumption for longer term transactions).

Depending on the circumstances of the transaction, it may also be necessary to cover the following points:

- rights of substitution – unless previously amended by the parties, the Gilt Repo Legal Agreement will provide for substitutions only when both parties agree to do so. If parties wish to maintain in particular cases a right of substitution which they have not included as standard in their legal agreement, this would need to be agreed at the point of trade;
- initial margin, if any, and maintenance margin;
- any non-standard features.

3. Pricing basis

The following conventions should apply to pricing a gilt repo:

Collateral: Collateral should be priced at the prevailing mid-market level with reference to a standard market source, such as CREST reference prices (as supplied by the DMO for gilts and Treasury Bills). DBV collateral is automatically valued by the CREST system, using dirty CREST reference prices.

Dirty price: In stock driven trades, the all-in or dirty price (as adjusted for any initial margin) of the gilt being repoed is generally taken to two decimal places. (This may not be so with a cash driven trade).

Day count: The interest convention on the cash given in gilt repo is the same as that prevailing in the sterling money markets, ie actual/365. However, interest accrued on the gilts is actual/actual.

4. General Collateral

Definition: All gilts may be posted as general collateral. Where either party wishes to include a restriction regarding specific types of gilts, this should be flagged at the point of trade. Stocks subject to ‘events’ during the life of the repo should not be posted as general collateral without the agreement of the counterparty.

In addition, subject to agreement between the parties, the DBV facility may be used to provide general collateral, provided both parties have access to settlement functions in CREST. To note: i) DBV collateral is not subject to events; and ii) the market convention is for DBVs posted as collateral only to comprise gilts, unless the party receiving collateral explicitly agrees to the inclusion of other non-gilts stocks held in CREST .

Specifying GC: It is helpful to the smooth-running of the market if counterparties can agree collateral at the point of trade. However, where this is not possible, counterparties need to agree at the point of trade when the details of collateral are to be confirmed. Those participants providing GC should bear in mind that a major part of the gilt repo market may be same day and that late confirmation of collateral may create an undesirable “bunching” of transactions towards the end of the business day, which could disrupt the market and the settlement services. Thus details of issues making up GC trades should be notified to counterparties within 30 minutes of agreeing the trade.

Collateral on forward trades should, unless otherwise agreed, be specified on trade date.

Substitution of GC: Parties should agree between themselves prior to the point of trade whether substitutions will take place during the life of the transaction and the conditions under which they will take place. Those wanting to do GC trades with substitutions have the option of either using the CREST DBV facility (as this automatically returns the securities each morning, it provides full substitution) or the substitution feature of the CREST Repo Transaction.

Interest flow: In the interest of risk mitigation all interest flow should happen within the settlement system.

5. Confirmations

See paragraph 3 of the GMRA and the Form of Confirmation in Annex II of the GMRA.

Section L of the Code stresses the importance of sending out and checking confirmations as soon as possible. The most effective means of doing this is electronically.

6. Margin

This section covers conventions relating to margin calls. Where the intention is for parties to close out and reprice rather than to make margin calls, the convention is to use the buy/sellback annex to the Gilt Repo Agreement.

Deadline for margin calls: The market convention is that, unless otherwise agreed, the deadline for margin calls to be effected on the same day is 12.00 noon (London time).

Margin call: The party being called for margin has the right to choose whether to deliver margin in securities or cash. Where margin is provided in securities, the choice of the security should be acceptable to the party making the call (Section 1

above recommends that this should be agreed before a new trading relationship commences).

Margin return: Where excess collateral is being returned, cash or equivalent securities to the security being held as margin should be returned.

Far date for margin called on a net basis: Common practice would be to book a free delivery trade with an end date coinciding with the maturity of the repo constituting the most significant portion of the margin deficit exposure.

Cash posted as collateral: Section 1 above recommends that the basis for determining the interest rate on any cash provided as collateral following a mark-to-market should be agreed between the parties when the relationship is set up. Common approaches are, for single repo transactions, that cash earns interest at the repo rate of the underlying transaction or, particularly where margin is held on a pool basis covering a number of repo transactions, that cash earns interest at a rate agreed as applying to such pools.

Currency of the margin: Unless otherwise agreed before trading, margin and margin calls will be in sterling or whatever base currency is specified in the legal agreement.

Settlement of margin calls: Normally, settlement of margin calls or returns which comprise gilts should take place through CREST.

7. Deadline for Terminating Open Repo and for Requesting Substitutions

The deadline for terminating an open repo or for requesting substitution of collateral for effect the same day shall be 10.00am, unless the parties agree otherwise.

Consequently, any rate changes need also to be discussed and agreed between the counterparties before 10.00am.

8. Settling gilt repos

This section deals with the settlement of each leg of repo transactions.

Callover: Callover applies to the first legs of trades which are for settlement on a forward basis; the convention in repo agreements is to refer to the party selling securities on the first leg as 'the seller'. On the second leg, it is the (original) 'buyer' who will be selling securities and who will therefore have to initiate callover.

Settlement of the Second Leg: Generally, the second leg of a repo will be settled by the return through CREST of the gilt(s) repoed against the repurchase consideration, together with the return, on a delivery free basis, of any margin called during the term of the repo. Settlement instructions for the second leg should be input on the trade date of the repo, as far as is possible.

Partialling: In the absence of prior agreement, either at the point of trade or before when bilateral trading arrangements are decided, a partial delivery may be declined, but participants are encouraged to act in such a way as to facilitate the settlement of trades and, in particular, should shape their trades according to their settlement capability. Partial deliveries should not be made using the splitting facility in CREST without prior warning and agreement.

To note: the Gilt Repo Legal Agreement provides for penalties in the event of a failure to deliver stock in whole or in part, on either the first or the second leg of a repo. In the event that a seller fails to deliver on the first leg, it provides that the repo rate nevertheless starts to accrue as if a delivery had been made; in the event that the buyer fails to redeliver securities on the second leg of the repo, it provides that the repo rate ceases to accrue since the seller was ready and willing to pay the repurchase price when due. In either case, the party to whom the delivery had been due may call for margin against any exposure to the other party or terminate the transaction.

ANNEX III

EXAMPLE CALCULATIONS OF GILT REPO TRANSACTIONS⁶

The examples, based on the term gilt repo trade set out below, illustrate market conventions on pricing, settlement and margin. The examples relate to stock driven trades; however the text identifies where there are differences for cash driven trades.

Amount:	£10,000,000	
Security	5%	7 March 2018
Term repo:	30 days, 17 September – 17 October	
Clean price:	98:00	
Repo:	6%	

EXAMPLE 1

Basic case – assumes no initial margin taken and no price movements occur which trigger remargining.

Calculating the all-in/dirty price

$$\begin{aligned} \text{Nominal x clean price} &= \text{£}10,000,000 \times 0.98 = \text{£}9,800,000.00 \\ + 10 \text{ days accrued interest} &= \text{£} \underline{13,736.26} \end{aligned}$$

Consideration	£9,813,736.26
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Therefore dirty price is:

$$\frac{\text{Consideration}}{\text{Nominal}} \times 100 = \frac{\text{£}9,813,736.26}{\text{£}10,000,000} \times 100 = \text{£}98.14$$

Nominal	£10,000,000
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⁶ To note: (i) The examples given refer to interest on cash consideration in order to reflect market terminology. This does not alter the legal nature of the transaction as a purchase and sale of securities; legally, these sums are not interest but an additional element of the purchase price for the second leg of the transaction. (ii) The examples given use accrued interest calculations based on an actual/actual day count. The money market convention for repo interest is actual/365.

In this example the dirty price is calculated to two decimal places but where the trade is cash driven, the price may be taken to more significant figures. It is for agreement between the counterparties how exact the calculation of the nominal amount of stock should be.

Settling the opening leg

In the case of a cash driven trade, the seller of securities passes £10mn of stock to the purchaser in return for consideration of £9,813,736.26

Calculating the repurchase price

The repurchase price equals the initial consideration of £9,813,736.26, plus the repo interest payable.

The repo interest payable =

Consideration x Repo Rate x No of days (on actual/365 basis).

ie $£9,813,736.26 \times 6\% \times 30/365 = £48,396.51$

Settling the closing leg

The original seller of securities receives back his £10mn of stock and pays £9,862,132.77 cash to the original purchaser (ie £9,813,736.26 + £48,396.51 interest)

EXAMPLE 2

With Initial Margin – assumes the counterparty repoing out stock provides initial margin of 2.5% (this is factored into the dirty price)

Calculating of the terms of the transaction

Nominal x clean price = $£10,000,000 \times 0.98 = £ 9,800,000.00$

$$\begin{aligned}
 + 10 \text{ days accrued interest} &= \underline{\underline{\pounds 13,736.26}} \\
 &= \pounds 9,813,736.26
 \end{aligned}$$

$$\text{divide by 1.025 margin} = \pounds 9,574,376.84$$

i.e. the adjusted all-in or dirty price, rounded to 2 Decimal places, is £95.74

The terms of the trade are therefore:

Nominal:	£10,000,000
Security:	5% 7 March 2018
Repo Rate:	6%
Accrued:	£13,736.26
All-in price:	£95.74
Purchase date:	17 September
Repurchase date	17 October
Total purchase price	£9,574,000.00
Repo interest:	£47,214.25
Total repurchase price:	£9,621,214.25

(NB If the counterparty repoing out stock receives the initial margin, rather than pays it, the calculation would be $\pounds 9,813,736.26 \times 1.025 = \pounds 10,059,079.67$, and the adjusted all-in dirty price would be £100.59.)

EXAMPLE 3

Making Margin Calls – using example 2, but with a fall in the market price of the stock from £98.00 to £95.00 occurring on 18 September.

Examples 3 and 4 show two ways to remargin repo trades. The objective is to eliminate the exposure which has arisen from a movement in market prices.

Counterparties need to agree the approach they will adopt.

The securities are now worth:

Principal	£9,500,000
Accrued interest	£ 15,109.89 (11 days accrued)
Total:	£9,515,109.89

The purchaser (cash provider) has, however, lent £9,574,000.00 against this security, one day's interest has accrued on the cash lent and there was an initial margin requirement of 2.5%.

Calculating the amount of the collateral shortfall

To restore the original margin of 2.5%, the cash provider in this example would need to call for the following amount:

(Original consideration + repo interest accrued on consideration) x (1 + initial margin)
less

New all-in price x nominal amount

i.e.	$(£9,574,000.00 + £1,573.81) \times 1.025$	= £9,814,963.15
	- £95.15 x £10,000,000	= £9,515,000.00
	margin shortfall	= £299,963.15

To note: If the counterparty reporing out stock received initial margin, rather than paid it, the calculation would be:

(Original consideration + interest accrued on consideration)

1 + initial margin

less

New all-in price x nominal amount

i.e.

$$(\£10,059,079.67 + \£1,653.55) / 1.025 = \£9,815,349.48$$

$$- 95.15 \times \text{£}10,000,000 = \text{£}9,515,000$$

= £300,349.48 margin shortfall.

Margin call. Provided the agreed maintenance margin has been triggered by the price movement (i.e. provided the collateral shortfall either absolutely or as a proportion of the consideration is larger than the agreed maintenance margin) the purchaser has the right to make a margin call on the provider of securities to eliminate the credit exposure. The Code regards it as an essential protection that calls are made when a collateral shortfall exceeds the maintenance margin. The party being called for margin has the right to choose whether margin shall be delivered in securities or cash.

Free delivery of sufficient additional bonds is a frequent method of eliminating the shortfall. If any additional amount of the original bond (5% Treasury 07 March 2018) is delivered to make up the margin shortfall, then the nominal amount required would be $\text{£}300,349.48 / 0.951510989 = \text{£}315,655.29$ of stock. It is for agreement between the parties whether this, or a rounded amount, say £300,000, is delivered.

Alternatively, cash may be posted as collateral. For single repo transactions, cash can earn interest at the repo rate of the underlying transaction. Alternatively, if margin is held on a pool basis covering a number of repo transactions, that cash earns at a rate agreed between the parties as applying to such funds.

EXAMPLE 4

Margin calls with a term repo transaction through close-out and repricing –
otherwise as example 3

A less frequently used approach, with some counterparties choose to adopt, is to close out the original transaction and re-open with new terms to reflect the movement in the value of the collateral. There are again the options of making the adjustment to either the cash or securities.

(a) adjusting cash

The original trade, done on 17 September as in example 3, is closed out for value on 18 September and reopened from the same date. The consideration for the close-out is calculated by adding one day's repo interest to the original consideration:

$$£9,574,000 + £1,573.81 = £9,575,573.81$$

The new purchase price is calculated by repricing the collateral at the new all-in price. In this case, this price will be: $£95.1510989 / 1.025 = £92.83$ rounded to two decimal places. This would give a new total purchase price of £92,830,000. In settlement, the close-out trade matches the near leg of the new trade - bonds do not therefore move – and the cash difference of £292,573.91 (ie £9,575,573.81 less £9,283,000) is paid to the provider of cash. In this process, interest has been 'cleaned up', i.e. the cash transfer includes one day's repo interest.

The terms of the repo trade are now:

Nominal	£10,000,000
Issue:	5% Treasury 7 March 2018
Repo rate:	6%
All-in price	£92.83
Purchase date:	18 September
Repurchase date:	17 October
Total purchase price:	£9,283,000

(b) adjusting securities

The consequence of closing-out and re-pricing via transfers of cash is to vary the amount of cash consideration on which the repo interest rate is payable. In a cash driven trade, adjusting the amount of securities is more likely to be appropriate.

The original trade – dirty price £95.74 – is closed out for value on 18 September and a new trade booked from 18 September to 17 October at an all in price of £92.83. The

nominal amount of stock in the new transaction needs to be increased to reflect its fall in value. The new nominal amount is determined so as to produce a total purchase price for the new transaction at the new price which matches that of the old – that is to keep the amount of cash lent constant at £9,574,000

Thus, the new nominal value is: $£10,313,476 \times 92.83/100 = £9,574,000$

A free delivery of £313,476 of stock is required, plus a payment of one day's repo interest of £1,573.81 from the old transaction.

ANNEX IV**BODIES REPRESENTED ON THE SECURITIES LENDING AND REPO COMMITTEE**

ASSOCIATION FOR PAYMENT CLEARING SERVICES

ASSOCIATION OF BRITISH INSURERS

BANK OF ENGLAND

BRITISH BANKERS' ASSOCIATION

EUROCLEAR UK & IRELAND

EUROPEAN REPO COUNCIL

FINANCIAL SERVICES AUTHORITY

INTERNATIONAL CAPITAL MARKET ASSOCIATION

INTERNATIONAL SECURITIES LENDING ASSOCIATION

LCH.CLEARNET

LONDON INVESTMENT BANKING ASSOCIATION

LONDON MONEY MARKETS ASSOCIATION

LONDON STOCK EXCHANGE

NATIONAL ASSOCIATION OF PENSION FUNDS

THE BOND MARKET ASSOCIATION

**BODIES REPRESENTED ON THE STERLING MONEY MARKETS
LIAISON GROUP**

ASSOCIATION OF CORPORATE TREASURERS

ASSOCIATION OF FOREIGN BANKERS

ASSOCIATION FOR PAYMENT CLEARING SERVICES

ASSOCIATION OF BRITISH INSURERS

BANK OF ENGLAND

BRITISH BANKERS' ASSOCIATION

EUROCLEAR UK & IRELAND

EUROPEAN REPO COUNCIL

FINANCIAL SERVICES AUTHORITY

INTERNATIONAL CAPITAL MARKET ASSOCIATION

INTERNATIONAL SECURITIES LENDERS ASSOCIATION

LIFFE

LCH.CLEARNET

LONDON INVESTMENT BANKING ASSOCIATION

LONDON MONEY MARKETS ASSOCIATION

LONDON STOCK EXCHANGE

NATIONAL ASSOCIATION OF PENSION FUNDS

SECURITIES INDUSTRY AND FINANCIAL MARKETS ASSOCIATION

UK DEBT MANAGEMENT OFFICE