

STOCK LENDING AND REPO COMMITTEE

TUESDAY 27 AUGUST 2003
SUMMARY OF MEETING HELD
AT THE BANK OF ENGLAND

Members present:	David Rule	Bank of England, Chairman
	Peri Avsar	ISMA
	Dagmar Banton	London Stock Exchange
	Simon Hills	BBA
	Chris Kerr	Inland Revenue
	Richard Steele	International Securities Lending Association / JP Morgan Chase
	Mark Hutchings	International Securities Lending Association / AIG
	Stefano Bellani	European Repo Council/ JP Morgan Chase
	Nick Fisher	UK Debt Management Office
	Hugh Gibson	Association for Payment Clearing Services/ HSBC
	Ian Fox	London Money Markets Association/HBOS
	Charles McSwiggin	Investec
	Jens Pöhland	The Bond Market Association
	Tony Hibbitt	Cater Allen International
	Margot Marshall	Financial Services Authority
	Simon Ainsworth	Bank of England, Secretary
Also in attendance:	Andrew Gracie	Bank of England
	Stephen Kirby	Bank of England
	John Rippon	Bank of England
	David Sheppard	Bank of England
	Sarah Breeden	Bank of England
	David Sawyer	Bank of England

SUMMARY OF MEETING HELD ON 27 AUGUST

1. The minutes of the previous meeting were agreed. Previous meetings' minutes are available at: <http://www.bankofengland.co.uk/markets/slr.htm>.

CD Migration

2. The Chairman reported the results of a meeting held on 9 August to discuss the migration of CDs from the CMO to CREST on 13 October. A note of this meeting can be

found at <http://www.bankofengland.co.uk/markets/money/cdsmigration.pdf>. The following conclusions had been reached:

- Migration of CDs should take place over one weekend.
- Holders of CDs and their settlement banks should be encouraged to discuss with stock lenders the possibility of substituting appropriate alternative collateral for pledged CDs.
- All CDs that remain pledged at the close of business on Friday should be returned to the outright owner against the collateral of a CREST payment on Monday morning. This cash collateral in CREST would be returned on issue of the new CDs in CREST, planned later on Monday morning.
- Participants should input settlement instructions into CREST and the CMO over the migration weekend.
- CD owners/stock borrowers likely to be involved should urgently discuss with their settlement banks their unsecured lending caps in CREST.

3. CRESTCo reported that the migration arrangements were being trialled and that they were confident that the migration process would work successfully. A couple of small bugs had been identified in the trialling of general CREST functionality for money market securities but these were being corrected and fixes would be in place before issuance of MMIs in CREST began, planned for 15 September. CRESTCo was continuing to gather legal opinions for foreign issuers and the Association of Foreign Banks had made good progress with the jurisdictional opinions.

4. The Chairman asked whether participants were scaling back activity in stock lending or CD markets ahead of the CD migration. Attendees did not think this was the case. One member said that some market participants were putting in place alternative collateral arrangements, including letters of credit, ahead of the CD migration weekend. ISLA reported that the lenders were broadly comfortable and that large scale recalls of lent stock collateralised by CDs were not expected.

Sterling Repo Market

5. Following Godfried de Vidts' presentation at the June meeting on the ERC's proposal to 'shape' transactions into €50mn/£50mn pieces for settlement, the Chairman reported that the Bank had spoken to a number of gilt repo dealers. Most contacts had been neither strongly opposed to nor strongly in favour of the ERC proposal. It was said that fails were not a particularly significant problem and trading to fail was not a prevalent practice in the gilt repo market. In discussion, some members thought the need for shapes in the gilt repo market was less pressing than in some other repo markets because of the convention to settle repo trades on a same day basis in the UK. Some participants regularly 'shaped' member-to-member gilt repo transactions for settlement in CREST, and LCH 'shaped' all trades cleared through its Repoclear service into £50mn pieces. CRESTCo said it had no current plans to introduce any automatic shaping functions but would always listen to the views of its users.

6. The Chairman reported that the Bank would soon undertake a review of its quarterly statistical survey of gilt repo and stock lending, the results of which are published in Monetary and Financial Statistics, the Bank's monthly statistical bulletin. The Bank intended to contact institutions that already contributed to the survey, together with any others that were active in the markets including recent entrants, with a questionnaire asking about the market and for views on what market statistics participants would find useful. One possibility being considered was to extend the survey to include corporate bond and possibly equity repo and stock lending. The purpose of the review was to ensure that the information in the survey continued to meet the needs of market participants and the Bank. The Bank would take the opportunity of the questionnaire to ask for views on the shaping question in a more systematic way.

Insurers Re-organisation and Winding-up Directive

7. Mr Steele briefed the committee on the directive, which had been implemented by regulation in the United Kingdom. The directive was not thought to have any immediate impact on securities lending. Its main purpose was to give direct insurance policyholders priority over insurance companies that had purchased reinsurance from an insurance company on that company's insolvency. As a response, the reinsurance market has

developed the idea of giving buyers of reinsurance a floating charge over an insurer's assets in an attempt to reduce their counterparty risk. But this raised a question about the ability of insurers to lend stock given that the industry standard agreements required lent stock to be free of charges, liens etc.

8. The floating charge proposal had been discussed by ISLA members, which had proposed some additional wording. The current view was that the industry standard securities lending agreements (including OSLA and GMSLA) would retain their force, but that any collateral securities pledged as margin remained an asset of the lender and therefore subject to any insolvency proceedings involving the lender and potentially any floating charge. One possibility was an annex to the GMSLA where contracts involved insurers. ISLA were liaising with LIBA on this topic and would update the SLRC in due course.

New York Payments Risk Committee : Cross Border Collateral Pools Proposal

9. The Chairman introduced the report noting that the main recommendations could be found on pages 15 & 16 (see <http://www.newyorkfed.org/prc/manage.pdf>). He said that the report was targeted at intra-day settlement issues but SLRC members might have views given the report's focus on the benefits of developing cross currency collateral markets. The report had been presented to the G10 Central Bank Governors' Committee on Payment and Settlement Systems. Members did not have any immediate comments. It was thought that the APACS liquidity managers group might be the most appropriate private sector UK forum to discuss the issues raised.

Presentation on Basel 2 Proposed Capital Treatment of Stock Lending and Repo

10. In response to a request by ISLA representatives, Mr Gracie presented a paper (attached) on this subject.

11. Members said that there had been significant co-operation between various industry trade associations on the proposed capital treatment for securities lending and repo (including TBMA, LIBA and ISDA) and their response to the consultation could be found on the TMBA website www.bondmarkets.com.

Publication on Securities Lending

12. The Chairman introduced a draft of the proposed publication and noted that the sponsoring organisations (BBA, ISLA, LSE and LIBA) were broadly content with the shape of what SFI had produced, although the report needed polishing and an executive summary would be added.

13. A number of attendees thought a short summary was needed. Some members thought it should include more on risk management practices and on regulation/oversight of the markets, including the role of the SLRC and reference to market codes of conduct. It was suggested that the Committee's terms of reference should be incorporated as an Appendix.

14. The Chairman welcomed these comments and said that while he thought the report should be descriptive rather than prescriptive he would think about how to incorporate views on risk management.

15. The Chairman invited members to submit further written comments to him by the end of September. The intention was to circulate a near final document for discussion at the next meeting with publication at the end of 2003 or in early 2004.

Transparency Directive

16. This proposed Directive was intended to harmonise reporting of significant holdings of securities to ensure transparency of corporate ownership. Mr Rippon informed the Committee that he had pursued with HM Treasury the concern raised at the previous Committee meeting about the possible reporting burden for bondholders, including in respect of holding government bonds. HM Treasury had confirmed with the Presidency that it was not the intention to capture holdings of bonds and the wording of the draft directive was being amended to reflect this.

17. Mr Rippon had raised with the DTI the implications of the directive for equity stock lending. The DTI's initial reaction was that the reporting requirements under the

directive were unlikely to be substantially different from the current Companies Act requirements. Mr Rippon noted, however, that his other contacts suggested that there was not a common understanding of how the current requirements applied to equity borrowing and lending. A number of members agreed that there was some lack of clarity regarding the current Companies Act in relation to stock lending and that systems were not in place that would enable a large increase in data to be reported – the respective obligations of beneficial owners, legal owners (eg custodians), lenders and borrowers needed clarification. Mr Rippon advised attendees with concerns to put them to HM Treasury quickly as the EU Commission was asking for an early response.

Voting on lent stock

17. Mr Hutchings outlined the work of the International Corporate Governance Network (ICGN) on this question and noted that ISLA had offered its assistance to the ICGN.

Contingency

18. Ms Breeden outlined the role of the Major Operational Disruption Task Force which was chaired by Sir Andrew Large, a Deputy Governor of the Bank. It had a number of aims: to assess the appropriateness of existing statutory powers dealing with a major operational disruption; to consider the impact of *force majeure* and other related clauses in existing contracts; to review the effectiveness of current market structures; and in the light of this, to assess whether HMT's proposals for new powers seemed appropriate. An interim report would be presented in November with a final report to follow a few months later. Two Committee members, Simon Hills and Hugh Gibson, were also members of the Task Force.

SLRC Netting Sub Group

19. Mr Ainsworth updated the committee on a meeting of the sub-group held on 15 June. At that meeting, Freshfields had reported that the opinion exercise was on schedule and that they thought they were close to an acceptable South African opinion.

Any Other Business

20. The Chairman informed the committee about a number of proposed minor changes to the Bank's operations in the sterling money markets. Details were available at www.bankofengland.co.uk/markets/money/stermm030827.pdf

21. Mr Gibson asked whether at the next meeting the Committee could discuss its 2004 work programme. The Chairman welcomed this proposal.

Summary of Action Points

- Bank to report back to SLRC on its review of its regular gilt repo market survey, including views on shaping of gilt repo trades for settlement.
- ISLA to update SLRC at its next meeting on the effect on stock lending markets of proposed changes to reinsurance contracts in the light of the Insurers Re-organisation and Winding-Up Directive.
- Members to send the Chairman any written comments on the draft of the proposed ISLA/BBA/LSE/LIBA publication on securities lending by 30 September.
- The Bank to report back to SLRC at its next meeting on the impact on the equity stock lending market of the proposed Transparency Directive.

Next Meeting

The next scheduled meeting was due to be held at the Bank on 9 December.

BANK OF ENGLAND

SEPTEMBER 2003

SLRC NOTE ON THE NEW BASEL CAPITAL ACCORD AND REPO-TYPE TRANSACTIONS

This note describes the current UK rules and the proposed Basel 2 rules for repo and repo-type transactions (such as securities loans and reverse repo).

Current UK Rules

The current UK rules for counterparty risk under repo and repo-type transactions are set out in the FSA's Interim Prudential Sourcebook (pp252-262). Each party to the repo-type transaction must hold regulatory capital against its exposure to the other (if subject to the FSA's rules¹). The regulatory capital charge for market risk in repo and repo-type transactions in the trading book derive from the EU 1996 Market Risk Amendment and will continue to apply under Basel 2 (albeit slightly modified in relation to specific risk charges).

The current UK treatment for counterparty credit risk depends on whether the repo and repo-type transactions are documented under a netting agreement, which also provides for daily margining. If the transactions are documented, then the market value of the collateral is subtracted from the market value of the securities (or vice-versa, in the case of reverse repo) giving an adjusted exposure, according to the following formula:

$$E^* = \max \{0, (\sum (E) - \sum (C))\}, \text{ where:}$$

E^* = the adjusted exposure amount;

E = the current value of the exposure;

C = the current value of the collateral.

¹ In the EU the Capital Adequacy Directive implementing Basel 1 (CAD) applies not only to banks, but to most "investment firms" also (such as the investment bank members of the SLRC). The FSA's rules implement this EU requirement. Similarly, the Directive implementing Basel 2 (the RBCD) is proposed to apply to the same constituency.

Exposure amounts are then risk weighted according to the counterparty's risk weight. As a general rule², there is no additional charge for any potential future exposure (PFE) on the transaction. In addition, the capital requirement for a series of transactions with the one counterparty can be calculated on a portfolio basis (provided there is cross-transaction netting).

Where the netting documentation requirement is not met, a so-called "risk cushion factor" (RCF) is added to the replacement cost of the transaction. The RCF is used in calculating the PFE under the transaction and varies according to the nature of the securities repoed (whether bonds (sub-divided by residual maturity) or equity).

Proposed Basel 2 Treatment

Basel 2 prescribes regulatory capital for counterparty credit risk arising from repo and repo-type transactions³. These rules apply to repo- type transactions in both the trading book and the banking book; in addition, trading book repos remain subject to the current market risk treatment. Basel 2 requires an institution first to adjust its exposure by reference to the collateral it receives under the repo or repo-type transaction. This adjustment may be done under a "simple approach" or a "comprehensive approach". The institution then determines its regulatory capital charge according to which of the three approaches to credit risk it adopts (Standardised, Foundation Internal Ratings Based (IRB) or Advanced IRB).

² Exception: "if the nature of a bank's repo/reverse repo business is such that risks are significant".

³ As set out in the Basel Committee's Third Consultation Document of April 2003 (CP3).

Calculating the Adjusted Exposure

Unless the institution employs the “simple approach”⁴, then (unlike the current UK rules (generally speaking)) it must apply haircuts to repo and repo-type transactions to take account of future price volatility and any currency mis-match (i.e. PFE). Where securities are lent or repoed against non-cash collateral, both the exposure and the collateral will be subject to a haircut. The cash leg of a repo or repo-type transaction will not be subject to a haircut.

Basel 2 permits an institution to choose one of the following three approaches to calculating these haircuts;

- standard supervisory haircuts (which Basel 2 sets);
- its own estimate haircuts; or
- a VaR approach.

In addition, Basel 2 gives national supervisors the discretion to choose not to apply haircuts to repos and repo-type transactions of certain government bonds between “core market participants”, which satisfy certain conditions⁵. This carve-out is not available to institutions using the VaR modelling approach.

Standard Supervisory haircuts and Own-Estimate haircuts

For an institution using standard supervisory haircuts or its own estimate haircuts, the adjusted exposure on an individual repo or repo-type transaction is calculated using the following formula:

$$E^* = \max \{0, [E \times (1 + H_e) - C \times (1 - H_c - H_{fx})]\}, \text{ where:}$$

E^* = the adjusted exposure amount;

⁴ If the institution chooses to apply the simple approach, then the risk weighting of the collateral is substituted for the risk weighting of the counterparty, subject to a 20% risk weight floor (with notable exceptions, such as where the collateral is cash and there is no currency mis-match).

⁵ See paragraphs 141-143 in CP3. The FSA chose to exercise this discretion for the purposes of the recent Third Quantitative Impact Study of Basle 2 proposals (QIS3).

E = the current value of the exposure;

C = the current value of the collateral;

H_e = the haircut appropriate to the exposure;

H_c = the haircut appropriate to the collateral; and

H_{fx} = the haircut appropriate for any currency mismatch between the collateral and the exposure.

Basel 2 specifies standard supervisory haircuts for bonds by reference to the rating and residual maturity (ranging from 0.5% for AAA rated sovereign bonds with a residual maturity of less than one year to 25% for non-investment grade bonds) and for equities at either 15% or 25% (the former haircut for main index equities (and gold), the latter for non-main index equities listed on a recognised exchange)⁶. Institutions may only use their own internal haircut estimates if they receive the permission of their national supervisor. Permission is conditional on the institution satisfying minimum quantitative and qualitative criteria⁷. The principal quantitative requirement is that the institution must calculate the haircut on the basis of a 99th percentile one-tailed confidence interval and minimum 5 business day holding period (assuming daily remargining). Basel 2 prescribes no particular model for estimating haircuts, so that an institution could use, for example, historical simulations or Monte Carlo simulations.

Basel 2 recognises the effects of bilateral netting agreements on a counterparty by counterparty (and not cross-product) basis, if the agreement satisfies certain requirements (e.g. the netting provisions must be legally enforceable in all relevant jurisdictions upon the occurrence of an event of default regardless of whether the counterparty is insolvent). In addition, netting across positions in the banking book and trading book is only allowed if all transactions are marked to market daily

⁶ The full set of standard supervisory haircuts is set out in the table in paragraph 122 of CP3.

⁷ These are set out in paragraphs 125-136 in CP3.

and the securities subject to the repo-type transaction must be recognised as eligible financial collateral in the banking book (basically, listed equities and investment grade rated debt⁸).

For banks using standard supervisory haircuts or own-estimate haircuts a separate formula is set out in paragraph 147 for calculating the adjusted exposure (E*) for repo and repo-type transactions subject to a master netting agreement. This formula applies the price volatility haircut to the absolute value of the net position in a given security and any FX haircut to the absolute value of the net position in a currency different from the settlement currency.

VaR Approach

As an alternative to using standard or own estimate haircuts, Basel 2 permits institutions to use a VaR modelling approach to reflect the price volatility of the exposure and collateral for repo and repo-type transactions subject to a master netting agreement. The VaR models approach is only available to institutions receiving supervisory permission⁹.

For an institution using a VaR approach for determining the adjusted exposure, the following formula applies (using the previous business day's VaR number):

$$E^* = \max \{0, [(\sum (E) - \sum (C) + (\text{VaR output from its internal market risk model} \times \text{multiplier}^{10}))]\}$$

The VaR approach must use a 99th percentile, one-tailed confidence interval for a five day holding period using a minimum one-year historical observation period of price data. An institution using

⁸ The categories of eligible securities are specified in paragraphs 116 and 117 of CP3. However, if the institution does not wish to net across the banking and trading books, any instrument in the trading book is normally eligible for repos booked to the trading book.

⁹ Institutions that have received supervisory recognition of an internal market risk model under the EU 1996 Market Risk Amendment are automatically eligible (but they may use a holding period of 5 business days rather than the 10 prescribed by the 1996 Amendment). Other institutions must apply to their supervisors and meet certain quantitative and qualitative criteria, such as proving the quality of the model through back-testing its output using one year of data.

¹⁰ A multiplier only applies if the back-testing rules require it (i.e. the number of exceptions is excessive).

the VaR models approach will be required to back-test the model output in a prescribed manner (see paragraph 151 of CP3). If a threshold of 100 exceptions (an exception occurs when the actual change in exposure to a counterparty exceeds the VaR model estimate), a multiplier is applied to increase the net exposure. The multiplier increases in steps from two to three as the exceptions reach 200 or more.

Calculating the Risk Weighted Assets Amount

After calculating its adjusted exposure to a counterparty, an institution under **the Standardised Approach** calculates the risk weighted assets amount for that adjusted exposure using risk weights corresponding to that counterparty and its rating.

Under the **IRB Approaches** an institution calculates the regulatory capital requirement using its own estimate of the probability of its counterparty defaulting under the repo or repo-type transaction (PD). It must also calculate the loss that would be suffered by the institution given that default (LGD), unless it is under the foundation IRB approach (where a formula adjusting the standard foundation IRB LGD of 45% applies: see paragraph 260). These are input into the IRB risk weighted assets formula for corporate, sovereign and bank exposures, together with the institution's exposure to the counterparty at default (EAD, which is normally E*, as calculated in the above formulas) and the maturity of the exposure (M).

Foundation IRB institutions are normally obliged to use a six month maturity in calculating regulatory capital for repos and repo-type transactions. However, supervisors may choose to require all banks in their jurisdiction (both foundation and advanced IRB banks) to measure M explicitly according to a specified formula. This formula sets a one-year floor on M, which the supervisor may dis-apply (allowing M to be set as low as one day) for certain short-term exposures, including repo and repo-type transactions¹¹. Moreover, if the repo and repo-type transactions are subject to a master netting agreement, the institution must calculate M using the average maturity of the transactions weighted by "the notional amount" of each transaction. This weighted average is subject to a five day floor.

¹¹ In QIS3 the FSA asked banks to calculate M on these bases.