Deposit Takers Division

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To the Chief Executives
of all Banks and Building Societies
supervised by the Deposit Takers Division (DTD)

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Dear Chief Executive,

Review of Treasury Systems and Controls at DTD Firms

As you know, an important feature of the FSA's new supervisory regime has been the use of horizontal or 'thematic' reviews to assess the risks posed by a particular issue across a sector or group of institutions. A review of risks identified through the ARROW* assessment process, as applied to individual DTD firms, highlighted a number of common issues relating to treasury systems and controls. To assess how widespread these risks were, we carried out a series of visits at the end of 2002 and during the first few months of 2003, to a cross section of banks and building societies supervised by Deposit Takers Division. Our aim was to assess whether the systems and controls were sufficiently robust to identify, monitor and manage the risks arising in these firms' treasury operations.

The cross-section of firms visited included domestic banks and building societies, and a number of branches and subsidiaries of international banks. Their treasury operations varied widely in terms of their size and complexity, and in the nature of their dealing or trading activities. The visits consisted primarily of discussions with senior management and with those working in the firms' treasuries or associated control functions, but they did also include limited sampling of transactions.

The purpose of this letter is to inform you of the principal findings from our visits. It does not constitute guidance from the FSA, but I anticipate that the issues covered below will be of interest to your Board and you may wish to discuss the contents with them. There may also be points of interest arising from the review for similar firms supervised by other Divisions of the FSA.

Overall conclusions

In general, we were disappointed that, in most firms visited, we found at least one material failing; and that in a number of cases there were many significant issues identified. Although there have been numerous well-publicised examples of material losses arising from inadequate controls within Treasury operations, it seems that in many instances firms are still

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* *The firm risk assessment framework* is available via our internet site together with our *Building the New Regulator* progress reports at http://www.fsa.gov.uk/approach/1_bnr.html

failing to address effectively some fairly basic issues. Whilst not all our findings applied to each of the firms we visited, we were concerned at the overall implications for the management of treasury risks in firms.

Main findings

The main issues identified were as follows:

1. Although the need for adequate *segregation of duties* was generally accepted, we noted numerous weaknesses in firms' implementation of this, even in the larger firms we visited. In most instances it was possible to identify potential ways of circumventing the controls and processes in place. Segregation can be achieved and enforced through an appropriate mix of independent reporting lines, physical segregation of front- and back-office, logical segregation (e.g. tightly controlled system access rights and system permissions) and segregation of duties within areas (e.g. for the back-office, segregation between payment instruction input and release, and between payment release and Nostro to General Ledger reconciliation). In addition to the general comments above we noted four particular issues:

    a) Within organisations that run trading books, the importance of an independent risk management function is almost universally accepted. Within some of the larger "banking book" Treasury operations we reviewed, the need to segregate front- and back-office activities was acknowledged, but the importance of segregation between middle-office/risk management and the front-office was less well understood. In a number of cases the Treasurer had an inappropriate level of control or was not subject to adequate challenge; and we asked these firms to review reporting lines to ensure adequate independence of the dealing and risk management functions.

    b) Arrangements for allocating access rights and passwords often gave rise to significant conflicts of interest.

    c) Cover arrangements for unexpected staff absence (e.g. through illness, resignation) were often found to be minimal, or not appropriately formalised, giving rise to the risk that otherwise appropriate segregation of duties could breakdown.

    d) We noted examples of insufficient controls in place to prevent potential trade manipulation. While a number of firms monitored the level of amended or cancelled trades, few undertook systematic reviews of the nature of these amendments and cancellations. There were also examples of lax confirmation checking, and a lack of risk-based chasing of outstanding confirmations.

2. *Senior management understanding* of the embedded risks in some of the Treasury products used was often poor and we found an insufficient level of understanding by, and challenge from, other ALCO members to the FD/Treasurer. In particular:

    a) We found cases where firms had purchased illiquid and long term financial instruments, or financial instruments with unusual features, perhaps without a full understanding of all the embedded risks. In a number of cases, reporting to senior management did not differentiate between plain vanilla instruments (e.g. an interest rate swap) and those with non-standard features which could materially affect both

value and performance as a hedge (e.g. an interest rate swap with an embedded swaption/termination clause).

b) Formal new product approval processes were in some cases very weak. Firms' systems and controls often did not extend beyond their existing products. We also found that Treasury policies frequently failed to keep up to date with products actually traded.

c) Methodologies and assumptions underpinning Balance Sheet simulation tools and VaR Models (where used) were generally not well understood by senior management. There tended to be inadequate documentation of such tools/models and their associated assumptions and limitations, both generally and in respect of the specific implementation of the tool/model within the firm. These observations apply equally to both vendor-supplied and in-house-developed tools and models. In addition the tools/models were frequently only fully understood by one person, giving rise to material key person risk.

3. Where a UK dealing or trading operation was in part or as a whole managed and controlled from an overseas location, rather than by local management, we identified instances of an *underlap of oversight and control* between the different management reporting lines. This was especially relevant for those operations where the risk management function or settlement function was not based in the UK.

4. *Internal audit* often missed significant, relatively straightforward issues and, in some cases, was simply ineffective. At many of the firms visited, internal audit had identified few of the issues we found with regard to segregation of duties, risk management and valuation, and we found that a number of internal auditors had little experience of Treasury. Another area of concern was that internal audit findings were not being fully considered and/or actioned, suggesting perhaps that internal audit were not sufficiently supported by senior management in their challenge role.

5. *IT procurement and implementation controls* were found to be inadequate at several firms which had encountered significant issues during new systems implementations and upgrades - due, it appeared, to weak scoping and management arrangements for IT projects.

6. Virtually no firm visited had sufficient policies in place to demonstrate that it had adequately considered its responsibilities in respect of *MAR 3 - Inter Professional Conduct (IPC)*. We found a lack of monitoring of IPC by Compliance and/or no testing of IPC by Internal Audit. There were also firms with no systems to tape dealer conversations which, while not specifically required under any FSA rule, is considered good practice.

7. We queried the effectiveness of *limits* at almost all the firms that we visited. These were often ineffective because they were set too high/wide, or were not reviewed and updated along with policies or mandates to confirm their appropriateness given current risk appetite or level of usage. This compromised their value as a control mechanism. In addition, for trading operations, while VaR, position or risk sensitivities limits were used to cap instantaneous exposure, such limits do not cap the amount of losses a dealer can incur from a series of small losses over an extended period of time. To mitigate such losses, it is normally considered good practice to put in place some form of stop-loss or

loss-referral limit structure, but a number of firms visited did not have such mechanisms in operation. (We noted that some desks used stop-loss orders as part of their trading and risk management strategies, but often these did not have the same effect or control as stop-loss limits).

8. While the banking books of banks and building societies are accounted for on an accrual basis, most firms (but not all) periodically marked-to-market certain elements of their banking books (e.g. bonds, swaps) for internal management information purposes and/or to assist with counterparty credit risk measurements. In many instances, however, the *mark-to-market valuations* were being derived by the dealers themselves and were not being sourced or verified by an independent function, giving rise to a risk of conflict of interest and potentially inaccurate management information.

9. For firms with trading books, numerous weaknesses were identified in *valuation and price-testing* policies and procedures. The liquidity of underlying instruments was not always factored into valuation parameters, and there were often no valuation adjustments or model reserves allocated by firms to compensate for limitations, inaccuracies or uncertainties in the pricing or modelling approach. Where traders were responsible for sourcing prices and revaluation rates on a day-to-day basis, we noted particularly an absence of random independent intra-month price/rate checks, leaving intra-month P&L vulnerable to manipulation by dealers.

10. *Credit exposure measurement methodologies and systems for derivatives* were generally not well developed. Measurement of derivative counterparty exposure was often only based on current market value without an add-on for potential future credit exposure.

Next Steps

Following on from our visits, we have continued to take supervisory action in respect of individual firms where we have found policies and/or practices carrying risk to our statutory objectives. We will be looking, as part of the Arrow review process, to assess whether firms are taking due account of best practice in designing their treasury systems and controls. In this respect, you may wish to review the relevance of the individual points to the treasury activities of your own firm, and to share any conclusions arising with your supervisor. Please also bring this letter to the attention of your external auditors.

I would like to thank those firms that participated in this review. If you have any questions on any of the issues covered, please do not hesitate to approach your usual supervisory contact.

Yours sincerely

Philip Robinson
Director