

Good practice guide

# Treasury management for housing associations

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# Treasury management for housing associations

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# Foreword

The ongoing turmoil in global financial markets reinforces the importance of treasury management to all housing associations' businesses. Whilst for many the primary focus will be cash management, others also have responsibility for substantial loan portfolios and associated derivative products.

We expect the board to be responsible for establishing the overall framework for risk management, of which treasury forms a part. It is therefore key that the board is suitably skilled so that it fully understands the treasury risks the association is exposed to and can effectively oversee this area of activity. Whatever the scale of the treasury function, associations must ensure that they employ appropriately qualified and experienced treasury staff.

Associations must have in place comprehensive treasury policies which are subject to regular review. It is also important to have in place a system of effective compliance monitoring and regular reporting to the board.

Whilst an efficient treasury function can contribute to the release of resources to deliver improved front line services for tenants and residents, it is also the means by which associations ensure that they maintain, for example, sufficient liquidity to meet their business requirements. Failure to operate an effective treasury function will have a significant impact on the business as a whole.

In light of recent developments in financial markets, this guide has been updated. However, it remains the case that the purpose of the guide is to provide an overview of treasury management in order to create a wide basis of understanding and more detailed guidance should be pursued for those aspects that are relevant to individual business requirements.

Clare Miller  
Executive Director, Governance and Viability

# Introduction

Treasury management is concerned with the management of treasury risk. Treasury risk can be defined in a number of ways, ranging from the long term risk of suboptimal performance of a HA against its business plan to short term cash flow costs of treasury decisions. The treasury function exists to ensure that liquidity and other financial assets are safeguarded and that financial risks are both identified and effectively managed in accordance with the organisation's objectives. Treasury management can be used to predict, manage and alter the cash flows of treasury transactions in a way that better matches cash flows from trading activities.

Treasury management is just one part of the risk management framework required to manage all risks that a HA is exposed to. Treasury departments exist to support the achievement of a HA's wider corporate objectives and one of its primary objectives will be risk minimisation. As a consequence, it would not be appropriate for a treasury department to be treated as a profit centre. However, it may have cost savings targets to achieve but these should be consistent with both the overall appetite for risk set by the board and financial efficiency measures.

The scope of treasury management can be defined with three core headings, the first two of which are unlikely to be delegated by the board:

- strategy and policy
- governance and operations
- financial and operational risk management

The guide is in two sections to provide users with both a high level perspective on treasury operations and management and a more detailed consideration of treasury operations and controls.

The sections are:

**Section A** – Treasury risk management & policy – This section is a high level summary of what needs to be considered by those responsible for governance in relation to treasury operations. This includes a summary of the types of risks that HAs face, how these risks arise and how those responsible for governance communicate their strategy with regard to these risks.

**Section B** – Financial and Operational Risk Management – This section includes a more detailed summary of the major risks facing HA treasury operations – Liquidity, Cash Management and Investment, Refinancing and Funding, Interest

Rate Risk, Counterparty and Credit Management, and Control and Operational Risk. This section is aimed at those with a financial/treasury background and is appropriate for those at the treasury practitioner level, including members of the finance and audit sub committees.

In considering treasury activities and the management of treasury risk the level of professional capability within the organisation is critical, both at board and officer level. HAs should ensure that those working in their treasury departments are trained and professionally qualified to a suitable level. For example, the Association of Corporate Treasurers (ACT) is a public benefit entity that sets and examines the standards treasurers should reach when working in corporate entities, including HAs. It fulfils for the profession of treasurer the same role as that filled by the UK accounting bodies such as ICAEW, CIPFA, CIMA, ACCA and ICAS.

Details of the work of the ACT and its qualifications are available on their website at [www.treasurers.org](http://www.treasurers.org).

HAs may also need to retain professional advisers for specialist treasury activities such as derivatives. This may be to obtain advice on the types of derivatives available and those that are appropriate

for the business as well as the pricing of those instruments.

This guide presents an overview of treasury management, and its objective is to create a wide basis of understanding from which the reader can elect to pursue in more detail those areas that are most relevant to their own and their organisation's circumstances. This guide considers the provisions of NHF's Financial Risk management – Focus on treasury, and CIPFA's Guide to treasury management in the Public Services. In addition, there are a number of other more general publications on risk management which are available on the TSA's website: [www.tenantservicesauthority.org](http://www.tenantservicesauthority.org) For convenience, the individual with responsibility for treasury management is referred to throughout as 'the treasurer'.

# Section A

## Treasury risk management and policy

This section provides a high level summary of what needs to be considered by those responsible for governance in relation to treasury operations. It is aimed at board, senior management level as well as those responsible for day-to-day treasury functions.

### A1 – Strategy and policy

Those with responsibility for governance should determine a strategy for a risk management framework and policy. The treasury department forms just one part of the overall risk management framework. In addition to the practical routine of managing risk, the board, chief executive, finance director and treasurer must all be concerned with how treasury risk is identified, controlled and dealt with, as well as identifying opportunities to add value. For treasury risk management to be successful it is important to consider:

- how treasury risk arises
- the categories of risk
- treasury strategy and policy
- how risk is identified and monitored

Each of these is discussed below. Subsequent sections of this guide address in more detail the issues arising under the major categories of risk.

### 1.1 How treasury risk arises

Treasury risk arises in different ways:

- risks arise directly from the HA's core activities, which can be diverse for an actively developing HA. In addition to its core social rental income stream (which is linked to the Retail Price Index (RPI)) an HA may have sales income both from new development and subsequent shared ownership staircasing. The quality, reliability and extent of the HA's control over each of these income streams varies, imposing risk
- expenditure increases, while also based on inflation, may rise at significant levels above RPI. In addition, some investment expenditure, for example on land banking increases debt, imposing costs and risk. To the extent that defraying such cost relies upon assumptions about sales or development gain, further risk is imposed
- since the HA cannot perfectly hedge all these exposures and its borrowing costs are, in most cases, linked to LIBOR or swap rates, plus margin costs, which will not necessarily move in the same way as RPI, house prices, land values or staff costs, a mismatched interest rate risk will be incurred relative to income

- the HA's debt imposes contingent risks. For example, it will have borrowed against the value of its property, and agreed various financial covenants relating to future financial performance eg in relation to interest cover
- certain types of risks are directly attributable to the activities of treasury management. Counterparty risk is perhaps the most obvious example, where treasury is responsible for entering into transactions with financial institutions (such as placing a deposit, having undrawn loan commitments or entering into derivative contracts) which by their very nature expose the HA to risk from the failure of the institution concerned. These risks can be split into financial risks such as economic, liquidity, maturity/ refinancing, credit or interest rate mismatch risks and operational treasury risks which occur due to the operational activities of the treasury function. These risks in aggregate can lead to long term underperformance, short term cash losses and ultimately perhaps loss of viability

It is not the objective of treasury policy or management to set or control the overall risk position adopted by the HA's business. However, treasury policy and management must recognise

and address the mismatched risks in relation to activities for which it has no direct responsibility (ie the core activities of the HA) and debt costs. Treasury policy and management must also address the risks inherent in treasury management activities, such as the investment of surplus liquidity and availability of sufficient debt finance on optimal terms given the HA's operational requirements.

This dual focus means that the treasury function must never be allowed to become a 'black box', remote from the core operations of the HA. This is particularly important to ensure that the risk management/ hedging strategy matches the underlying business activity and the need for a balance of certainty and flexibility. Where appropriate, risks must be considered together, not each in isolation.

The importance of tight control over treasury risk is dramatically illustrated by the fortunately rare instances of disastrous losses attributed to companies' treasury management (both in the UK and overseas). In general, these losses have occurred not because of mistakes associated with those treasury risks that arise in connection with commercial activities, but rather because of failures within treasury's own activities. Two common factors in many of these treasury disasters has

been a lack of board level understanding of (and control over) the management of treasury risks and a lapse in operational controls. Employing a professionally qualified treasurer is a good first step in ensuring against the possibility of a treasury failure. HAs will need to ensure that the level of experience and qualifications of their treasury staff is commensurate with the scale of their treasury operations.

## **1.2 The categories of risk**

Only those aspects of risk directly associated with treasury management are discussed in this guide. In thinking about treasury risk management the finance director will want to be alert to the broader context of risk, but for the purposes of this guide the discussion is restricted to the major types of risk most commonly associated with treasury.

### **1.2.1 Liquidity, cash management and investment risk (Section B1)**

This will arise if a HA does not have sufficient liquid assets or readily available funding facilities to meet its obligations as they fall due. The management of this risk is at the heart of the treasurer's day to day operations and is essentially cash management and

ensuring compliance with loan facility terms and covenants.

### **1.2.2 Funding and refinancing risk (Section B2)**

This will arise if a HA is unable to refinance, when required, any existing maturing borrowings, to fund capital expenditure or make other financings in accordance with the refinancing provisions made; or can only do so on market terms which are inconsistent with business plan assumptions. The management of this risk includes monitoring the conditions prevailing in the market and maturity profile of existing finance, undertaking the negotiation of finance in accordance with prevailing market conditions and the avoidance of reliance on any single counterparty.

### **1.2.3 Interest rate risk (Section B3)**

This exists for all HAs in one form or another. The periods of considerable volatility in interest rates over a number of years have had profound consequences for HAs (both for those that chose to fix their debt when rates were high and those that fixed their investments). Interest rate risk management decisions are often seen as 'lumpy', in the sense that they are taken relatively infrequently and involve relatively large amounts of money

(by contrast to routine liquidity risk management decisions). Notwithstanding this, many HAs devote considerable resources to active monitoring and management of interest rate risk. The key for the HA is in defining exactly what interest rate risk it is exposed to and how best to manage this in the context of the overall risk position of the business.

#### 1.2.4 Counterparty credit risk (Section B4)

This arises because in any financial transaction a HA is exposed to the possibility that the institution with which it is dealing may default unexpectedly. If a deposit is involved then the whole amount may be at risk of loss. If a hedging transaction has been entered into with the institution involving a future settlement date, or is current but held other than embedded in the relevant loan (ie in a separate swap agreement), then default could render valueless the transaction concerned, the replacement of which may have a material cost. In addition to the replacement cost there may also be outright credit exposure or cash costs, eg where derivative contracts make provision for margin calls based on mark-to-market valuations.

#### 1.2.5 Operational risk (Section B5)

Operational risk arises through the failure to employ sufficient system and control procedures to prevent losses or defaults by the HA arising out of non compliance with loan covenants, fraud, error, wilful override of controls, or other eventualities. Important operational considerations include appropriate segregation of duties and reporting lines.

### 1.3 Treasury strategy and policy

Defining a treasury risk management framework and policy is the essential first step in ensuring that treasury risk is under control and properly managed. Treasury policy needs to take into account the interests of a wide number of stakeholders and these interests may not always coincide. The policy, therefore, becomes a statement of the attitude of the board (and senior management) to risk, which balances these potentially conflicting interests. This is often seen as an indication of the 'appetite' for risk, which relates to the extent to which risk (and, therefore, potential loss) should be accepted and tolerated.

The TSA would obviously expect a HA's treasury risk appetite to start from a position of low risk. A decision needs to be made by the board as to their appetite for risk, and this should be clearly documented and communicated to those with delegated authority to ensure treasury dealings are in line with the HA's strategy on risk appetite.

The typical HA is likely to start from a position where treasury risk is minimised wherever possible (by using techniques such as those described in the subsequent sections), however it may elect to take on additional risk, depending on its analysis of potential risk and reward, and its ability to manage this risk. Minimising risk means seeking to neutralise its impact so that cash flows, income and expenditure etc, are less likely to be adversely affected by the identified risk.

The HA should always ensure that appropriate rigorous evaluation is made of the impact of potential treasury risks (eg from a particular derivative) on its business plan. This should include not only the risk inherent in the transaction under different future scenarios, but also the effect aggregated with existing exposures.

Treasury policy should ensure that it addresses core financial requirements when considering risk

(ie requirements and risks arising from its actual commitments, not those contingent on, for example, uncertain future development possibilities). There is a danger of over-funding and/or over-hedging if the HA attempts to hedge more than it is reasonably likely to require, with possible losses on unwinding exposures surplus to requirements.

In preparing a board policy on treasury risk management the elements which should be considered include:

- a definition of the types of risk covered by the statement (for example, the board's view of the key economic, financial and operational risks)
- whether the board is risk averse (with respect to the specific risks falling under treasury's responsibility) or a risk-taker
- given that each possible type of hedging (fixed, variable, capped, collared, RPI linked and cancellable swaps) imports a different risk/reward position into the business plan, the maximum and minimum amount of each type of risk that can be imported at any time and how this is to be measured
- which techniques, markets and instruments are acceptable for the management of risk and which are not

- how performance in the management of risk will be measured
- how risk should be reported to the board and what the requirements are for exception reporting (of both current and forecast levels of risk)

The controls and mandate limitations to be followed in undertaking transactions within the policy and board reporting requirements

Once the treasury policy has been drafted, best practice requires that it should be formally approved by the board. The statement then forms a cornerstone of the overall set of policies and procedures applied to treasury management. A formal procedure should also be put in place to review treasury policy, strategy and procedures at least on an annual basis. This annual strategy review can usefully revise both the risk position desired as the market and economic conditions change and the specific mandates to incur risk given the current overall risk position and potential opportunities or threats.

It is usual for the treasury policy to be a single document. However, documentation of treasury procedures may flow into more than one document.

## 1.4 How risk is identified and monitored

A generic policy for treasury risk management, appropriate to each type of risk, is based on the following elements:

- defining the risk – ensuring that there is an agreed basis for defining and, therefore, recognising the risks concerned. These risks can be varied in terms of timeframe and potential impact and it is the range of risks facing the HA which needs to be considered as part of the treasury risk management policy
- identifying and forecasting – putting the appropriate procedures in place to allow the risks that are currently faced and are expected to materialise over the forecast period to be identified and measured. Typically, this will involve building a mathematical model of the HA's activities that can be stress-tested to assess the outcomes of possible variations in the input variables (ie the forecast assumptions)
- allowing active management – using the available data on risks (particularly the forecast levels) and applying to these the agreed management framework (risk appetite), which will reflect the HA's stated objectives
- reporting regularly on risks – ensuring that the board and senior management team receives

regular data in a consistent format on the level of actual and forecast exposures, the actions being taken, the level of unhedged risks, the sensitivity to normal or unexpected ('worst-case') market changes and the results achieved from risk management

## **A2 – Governance and operations**

Treasury management reporting is necessary to provide information to management and the board, to support decision-making, to assess performance and to check that activities are within the boundaries set by established controls. Information not only flows out of the treasury function but must also flow into it from other parts of the organisation. This section looks at the collection of data for treasury and reporting upon the treasury function's activities.

### **2.1 The responsibility for treasury control**

In any HA a number of different parties will have a degree of interest in control of the treasury function. These will include the board, chief executive, finance director and the internal audit function. Each shares common concerns over the treasury

control framework and before a suitable framework can be defined in any detail, the practical allocation of responsibilities within the HA needs to be recognised. The best practice model is based on a 'cascade' of responsibility, which will typically involve the following:

- the board – it is at board level that objectives, risk appetite and overall policies must be properly defined. Ultimately, of course, it is the board's responsibility to manage the system of internal control and risk across the HA. However, in practice, much of this will be delegated to a sub-committee or operational management
- the finance or treasury sub-committee – many larger HAs operate with board sub-committees which carry a responsibility for finance, or specifically, treasury decisions. Such a sub-committee typically has a delegated authority from the board, under which it will approve detailed strategies that are put in place to implement and meet the board's approved objectives
- the chief executive – since treasury operations will typically be controlled by a small number of staff, the chief executive may fulfil an executive oversight role to gain assurance that board policy is adhered to and that key controls are carried out

- The finance director – at this level, there is a clear responsibility for both the strategic and tactical direction of treasury. The finance director may have a substantial amount of delegated authority provided by the board to approve most of the routine and non-routine actions to be taken by treasury. It would not be appropriate to see a full delegation of authority, and finance directors should ensure that the board remains involved with the most strategic (and risky) treasury decisions
- the treasury function – responsibility for implementing the strategic and tactical direction of treasury will lie with the treasury function, whether this is one individual whose time is less than fully required on treasury matters or (as in the largest HAs) a group of people wholly devoted to treasury management. In the latter case, there will be levels of responsibility within the department, reflecting the management structure and experience levels of the individuals. For all transactions undertaken it is essential that there should be appropriate segregation of duties, which is considered in Section B5
- the internal audit function – regular, detailed reviews of treasury should be conducted in order to focus on the effectiveness of the control framework. Internal audit reviews should be performed on a regular basis, by appropriately

qualified auditors. Where internal audit functions do not have sufficient expertise or experience, with regard to treasury, it may be necessary to outsource internal audit coverage of treasury. Each of the cascading levels of responsibility outlined above should be concerned with specific control processes, receive relevant reporting and be clear what control actions need to be taken

Taking the responsibilities of the finance director as an example, the following statements could be made:

- the finance director has been given delegated responsibility to approve treasury procedures (after policies have been defined at board or sub-committee level)
- the finance director has been given delegated authority to approve transactions in excess of the treasury's own limits, but subject to referral to the board for major items (to be suitably quantified)
- the finance director will receive treasury reports which include a daily summary of positions and actions, a detailed exception report as necessary and weekly reports on the main transactions

Specific control actions for the finance director would be focused on the implementation of

their defined authority levels and the review of transactions and exception reports.

## 2.2 Collection of data

Data may be collected by the treasurer for several purposes: to provide information to management (for example, level of available security); to support decision-making (for example, hedging action required); or to monitor compliance with controls (for example, counterparty limits).

Information flows into the centre from operating units are essential for a treasury function to fulfil its objectives. The operational cash flows and financial risks managed by the treasurer arise in these operating units, so a suitable framework must be put in place for collecting that information. Reporting may be part of a regular cycle or triggered by certain events.

Examples of regular reporting are periodic updates of cash flow and interest rate exposure forecasts. Cash flow forecasts are required covering different periods depending on the nature of the cash management decisions being taken.

An example of the type of reporting that is triggered by events would be an operating unit required

to make a large payment in excess of a pre-set threshold amount, for which special action may need to be taken by the treasurer.

Treasury must take steps to monitor the quality of the information it receives and take appropriate action to resolve inaccuracies. In the case of forecasts, this will involve comparison of actual with projected results. In the case of actual data received, treasury should ensure that suitable reconciliations are used to check the integrity of data.

## 2.3 Treasury reporting

Suggestions on the appropriate recipients and content of daily, weekly and monthly reporting are considered in Appendix A1.

The degree of information which the board will require to manage treasury associated risks will be different for each HA depending upon the level of sophistication of management and control of the associated treasury risks. As a minimum, however, board members should be able to manage at a high level, the funding, derivative, banking and investment positions and would therefore require suitable information in relation to these. Examples of such information could include:

Liquidity, cash management and investment – credit limit monitoring together with details of any breaches; cash forecasting (See Section B1).

Refinancing and funding – details of underlying loan agreements prior to entering into new facilities; split of fixed/capped/floating rate funding; Committed and Uncommitted undrawn facilities; cost of capital details; details of any embedded derivatives along with hedging rationale for their existence; covenant forecasting; details of any potential funding gaps (See Section B2).

Interest rate and counterparty risk – notional amounts; mark to market; hedging rationale; hedge relationship monitoring such as effectiveness testing; counterparty exposure (see Sections B3 and B4).

## **2.4 Performance measurement**

Many HAs find it difficult to measure performance for treasury activities and as a result leave this less well-defined than for other areas of management. Nevertheless, treasury activities often involve decisions with a significant financial impact and should be subject to the same discipline as other business activities.

It is essential to strike a balance between recognising the need to manage risk and the need to contribute to (or not undermine) financial results. Unfortunately, there is no single performance measure which can adequately reflect this balance, although some financial institutions have developed combined measures of risk and return. For the HA, the most practical approach to satisfying the need for treasury performance measurement is to develop a suite of measures in line with its objectives for treasury.

### **2.4.1 Performance in relation to objectives**

HAs may have complex and widely differing objectives for their treasury operations. Within the overall desire to be risk adverse it is not possible to eliminate risk or uncertainty entirely, nor should it be necessary to forego market opportunities through too inflexible an approach. Careful assessment of risk and benefits is required.

Where the objectives of treasury are to earn an income from investments, performance measures will revolve around the calculation of financial results but must always be applied alongside a comparison of positions with risk limits. The potential for increased income will always be at the expense of greater risk.

Where treasury is run as a service, performance measurement will focus on meeting objectives concerned with providing benefits to the other parts of the organisation and minimising costs.

#### 2.4.2 What to measure

In considering performance measurement it is helpful to remember that treasury's primary objective should be to help in maximising the HA's future net operating cash inflow, at the agreed level of risk, and to minimise the volatility of that cash flow as an aid to planning stability.

Performance measurement should include not only the financial results of dealing and hedging activity but also cash forecasting, level of service to other parts of the business, controls compliance and costs. The approach to measuring each of these will clearly differ:

- dealing performance – this may include both absolute measures, say of income, or yields achieved from investments
- hedging activity – is often measured using market benchmarks. A typical benchmark for interest rate transaction hedging would be to calculate what would have been the result if 100% of exposures had been hedged at a

certain point. This benchmark is then compared with the actual rate achieved

- cash forecasting performance – can be measured by comparison with actual results and identification of variances. Unacceptable variances can be attributed to the source of the data and action taken to improve it
- level of service – to other parts of the HA can be measured in terms of volume of transactions handled, requests dealt with in a specific period of time or transaction charges passed on by the treasury function
- controls compliance – can be measured both by regular reporting of actual positions against limits and by wider reviews. Internal audit can provide a useful check on the performance of the treasury function in meeting pre-set standards of control, for example in terms of following approved procedures
- cost performance – can be measured not only against overall budget but also on a per transaction or percentage basis. Lender charges are usually measured on a year-on-year basis, or by comparison to other similar organisations

## **2.5 Requirements for effective performance measures**

Each organisation must determine performance measures which are relevant to its own treasury activities. There are, however, some common requirements which those measures should seek to meet.

Performance measures should be achievable but contain a sensible degree of stretch to encourage improvement. They should be simple and understandable. Overly complex measures will achieve nothing if the meaning of the results is not easily understood. Measures should be based on readily accessible information and should be straightforward to calculate. They should also support the right actions. It would not be appropriate to set an easy benchmark which encouraged inactivity if in reality active management was required.

It is recognised that treasury control is a particularly complex area of governance, and one where boards may not have specific technical background. In order to assist those charged with governance, a list of suggested questions is included in Appendix A2 of this guide to assist the board in governing treasury operations.

## Section B

# Financial and operational risk management

This section provides a more detailed summary of the major risks facing HA treasury operations. It is aimed at those with a financial/treasury background and is appropriate for those at the treasury practitioner level including members of the finance and audit sub-committee.

## **B1 –Liquidity, cash management and investment**

Liquidity risk is essentially the risk that a HA does not have sufficient funding facilities to meet its obligations as they fall due. Whilst the definition of liquidity is a simple one, the inherent liquidity risk can vary markedly and will be driven by factors such as strength and predictability of operating cash flow and level of margins.

A secondary objective of liquidity management is to ensure that cash surpluses, when they arise, are invested in an appropriate way. The key to effective liquidity management is the identification of future cash shortages and surpluses by means of accurate cash forecasts. Where there are shortages, the treasurer can plan drawings from banking facilities or other sources of funding to provide additional cash. Where there are surpluses, these can be

invested to earn a reasonable return for the HA or used to repay funding.

Decisions over whether to retain or invest cash surpluses, and to what level, have significant consequences on the interest earning capacity of the HA, or conversely the level of interest being paid, and are therefore integral to the success of any HA treasury department.

### **1.1 Cash management**

While more technically complex aspects of treasury management are essential to the successful funding of operations, it is the management of cash which sits at the heart of good treasury management. Failure to provide for the cash needs of an otherwise viable business can lead to its collapse. The treasurer is concerned with ensuring that cash is available when needed, and circulates efficiently, and that surpluses are well managed. Good planning, regular information flows and efficient processes are required to support this. There are two key cash management issues which the treasurer needs to address. These concern liquidity management and funds transmission. Liquidity management involves dealing with the shortages or surpluses of cash arising from ongoing business activities, and funds transmission is about

ensuring that the most efficient and secure means of cash movement are used.

### 1.1.1 Short term

Working capital is the funding needed to meet the cash shortages that arise in the business due to the difference in timing between incurring costs and receiving income. Working capital requirements are primarily driven by revenue, cost of repair and maintenance, wages and other overheads. The cash impact of these is seen through changing levels of debtors, creditors and other current balance sheet items. Together these create the need for a business to have short term working capital; keeping this need to a minimum reduces the funding costs of the business.

HAs in practice will manage their cash in one of two ways, either maintaining a minimum level of immediately available cash deposits (typically set by the treasury/liquidity policy) sufficient to meet short term cash requirements, or by the use of overdrafts or revolving facilities. In the latter case, the aim will be to achieve balances close to zero at the end of each business day, any surplus funds being invested in short term instruments/assets. In practice, when the latter technique is used it is often that the position ends in a liability position and

hence attracts an interest charge. However, this may be compared to the interest opportunity cost in keeping a level of liquidity within a low interest paying current account. Careful monitoring and forecasting is, therefore, required before deciding which approach to use for managing short term liquidity.

It is also important to note that wherever the overdraft/revolving facility approach is used it is likely that financial covenants will be put in place by the lender. Even though these facilities are not used as the main funding for the HA, due to cross default clauses in almost all loan agreements it is important that these covenants are monitored and managed in the same way as any other. Furthermore, a HA's liquidity may depend on undrawn facilities, the availability of which can also be prejudiced by non-compliance with covenants. It is therefore essential that the treasury policy includes required levels of headroom against covenants to ensure the continued availability of liquidity.

### 1.1.2 Long term

In addition to working capital requirements, the business's need for cash will be influenced by other less regular but usually sizeable cash movements. These can arise from the purchase or development

of housing stock, the servicing of debt, receipt of grants and payment of taxes. The size and irregularity of these can often cause major short term demands for cash so they should be captured as soon as possible in the cash forecasting process. The amount and timing of any investment cashflows have to be carefully monitored in conjunction with the HA's short term working capital requirements to ensure that the short term cash needs of the HA are met.

The long term liquidity of a HA is dependent on the following:

- maturity of existing facilities
- replacement of existing facilities
- obtaining new facilities
- retention of existing funding through the compliance, and monitoring of compliance, with covenants

These factors are considered in Section B2.

## 1.2 Cash forecasting

As a basis for the planning of cash management activities, it is essential to have accurate forecasts of the cash flows through the business. The cash forecast is the key basic tool which a treasurer will

use to manage liquidity. A range of forecasts with different time horizons is needed to reflect different cash management decisions. Typical forecast periods would be:

- long term – up to 30 years in line with the business plan but, depending on the nature of the HA, this could be longer
- medium term – usually a one year plan, phased monthly
- short term – there is often more than one short term forecast covering periods from one day to three months ahead

Long term forecasts are principally used to manage overall funding requirements; these are discussed in Section B2.1.

Medium term forecasts are used to plan major drawdowns and repayments of funding or investment of short term surpluses. The annual budget plan can form a sound basis for these forecasts however this can lead to practical problems. If the budget covers the next financial year, then with the passage of time, it covers a progressively shorter period into the future. The remaining time horizon may reach as little as two or three months before the next budget is finalised

and its new cash flow projections extend the time horizon out to one year again.

Although the annual budget forms a useful point of reference, it is normal practice to deal with the timing problem referred to above by preparing a separate rolling 12 month cash flow forecast. As each month passes a new month is added to the end of the forecast.

There are two main approaches to preparing the 12 month cash forecast: the accounting-based Cash Flow Statement and the receipts and payments basis.

Using the Cash Flow Statement basis broadly involves taking a forecast of future accounting profit, adding back depreciation, adding back or deducting increases and decreases in debtors, creditors and stocks and then deducting capital expenditure. In practice, it can be difficult to produce rolling forecasts in this way.

Providers of data find it easier to focus on forecasting just the cash movements without the complications of accounting treatment that go with more formal accounting forecasts. For this reason the receipts and payments basis is usually used with a forecast Cash Flow Statement being prepared at

budget time as an additional check and as part of the projection of the balance sheet.

Short term cash forecasts are used to support day-to-day decisions on cash management. Typical time horizons for these forecasts might be one day, six weeks and three months.

A one-day forecast is used to identify actual cash flows through the HA's bank accounts so that action can be taken to minimise expensive overdraft borrowing and cash left in non or low interest-bearing current accounts. The main source of information for this forecast is the HA's bankers, who can provide data about known movements through the accounts (for example cheques clearing). This data is supplemented with information from within the HA about same-day value cash movements not known to the bank (for example, payment for a property purchase).

A six-week forecast is used to allow the treasurer to make decisions about placing or borrowing funds on the money markets with one week and one month maturities. If the forecast is rolled forward one week at the end of each week, then it will always cover at least five weeks ahead. Information for this forecast is collected on a receipts and

payments basis and will have three principal sources:

- the run-off of existing debtors and creditors. The payment cycle for existing creditors is usually organised in advance and will give accurate information about cash outflows. Receipts are less predictable but can often be estimated from past patterns of behaviour
- estimates from operational departments of new debtors and creditors
- estimates from the departments dealing with direct cash payments that may be regular (for example, wages and salaries) or irregular (for example, significant development activity, grants, tax)

In order to ensure effective forecasting, treasurers need to develop a clear understanding of who produces the sources of forecast data, and maintain a close contact with them, and compare actual cash flows with forecasts to identify sources of inaccuracy, as a basis for improving the forecasting method.

### **1.3 Cash pooling**

While major surpluses and deficits need to be managed using the processes described above, it

is also the responsibility of the treasurer to ensure that day-to-day surpluses and deficits on current accounts, which have not been identified in advance for one reason or another, do not sit idle or incur unreasonable interest charges.

The normal approach to dealing with these is to establish a cash pooling or zero balancing structure. All UK banks are familiar with this process, which involves linking a HA's accounts in such a way that debit and credit balances will be offset for interest calculation purposes, without any movement of funds between accounts (notional pooling).

Variations of this approach can be employed to sweep funds, automatically and physically, into a concentration account, if this is a more appropriate approach for the HA concerned (a typical technique is called 'zero-balancing').

### **1.4 Investment of cash surpluses**

Once expected surpluses or shortages have been identified, action can be taken to cover these. Shortages will be covered by using available funding facilities; this is discussed further in Section B2.2. Where there are surpluses to invest, appropriate deposit accounts or instruments must be used as defined in the treasury management policy. What is

appropriate will depend not only on the amount and expected duration of the surplus but also upon:

- creditworthiness – the degree of confidence that the counterparty will not default
- liquidity – the ease with which the investment can be turned back into cash, and the risk of loss on premature encashment
- rate of return – the net interest earned

The subject of creditworthiness is crucial since default can result in significant losses. How this risk can be managed is described in Section B4.

The simplest way to handle cash surpluses in the UK is in current and call accounts with clearing banks. These offer ready access to cash (high liquidity) and creditworthiness (depending on the institution) but little or no return. The close of day balances on these accounts should be kept as low as possible after allowing for unexpected payments or delayed receipts.

Repayment of existing loans is an obvious way of obtaining a high return for surplus cash. It is unlikely that it will be possible to invest at a higher rate of interest than that being paid on existing borrowing. The HA's ability to make repayments will depend on the nature of its borrowing facilities and the ease

with which it will have access to those funds again when needed.

Beyond these there are a wide range of possible instruments available for investment. Financial institutions continue to offer a host of variations on the basic products to suit the needs of their customers; some of the most common are set out in Appendix B1.

In practice, a range of instruments may be used to meet the particular needs of the cash forecast and provide an acceptable return for a given level of risk.

The instrument chosen is subject to what a HA's constitution allows, and HAs should seek legal advice before entering into an investment where further clarification is needed.

In addition to the liquid 'cash' investments mentioned above, a number of HAs have also invested in the equity markets following the revision of the Trustee Act 2000. HAs should be aware of both the volatilities and other risks involved in equity investments which make them, on the whole, a higher risk investment than those noted above. Equity exposures whether managed directly or via a fund manager or discretionary broker should be reviewed monthly to ensure that any credit risk and

liquidity risk is adequately monitored and within internal limits set by the HA.

There are many different types of investment open to the HA, which will depend upon its treasury management approach. Before investing in any of the allowable instruments the treasurer will need to ensure that they are acting within the formal guidelines set down in the HA's Treasury policy or investment policy statement. Typically, these would include credit/counterparty limits, instrument type limits as well as guidance on the level of risk/return that the HA is willing to accept. Boards should consider a variety of factors when deciding upon these limits which are discussed in more detail in Section B4.

### **1.5 Use of brokers and cash funds – Trusts**

For the HA which needs to invest cash surpluses but which has limited treasury resources of its own, there are two ways of utilising external skills to help in the investment process: through the use of money brokers; and cash based funds or trusts.

Using a money broker can save time in finding suitable investments at a competitive rate. Brokers have access to a wide range of instruments and

counterparties and can offer expert assistance in placing surpluses. In return, money brokers charge the investor a commission. It must be remembered that the investment is with the final counterparty, not with the broker, so the counterparty's creditworthiness should be taken into account when placing funds as well as any settlement risk to the broker during the settlement process.

Cash funds operate a little like unit trusts: a pool of money market instruments is managed by an expert fund manager and a HA can buy and sell units in this fund on a daily basis to match its cash flow requirements. When offered through a bank, any surplus balances on the HA's current accounts may be automatically swept into (or out of) the fund; alternatively, units can be bought and sold by the treasurer via telephone. The advantage of such cash funds is that they can offer the liquidity and convenience of a call account coupled with the potentially higher returns obtained from a spread of investments, maturities and counterparties which would not be available to the HA acting alone.

Unlike the other forms of investment described earlier, the HA's investment is not with the issuer of the instruments in the fund, but with the fund itself. The treasurer will therefore be concerned to see that the credit rating of the fund is compatible with

the HA's risk requirements as well as the underlying counterparties. The treasurer will also not have any discretion over future transactions and exposures within the fund and so will have to monitor the counterparty risk within the fund to ensure that this is still in line with the treasury policy.

## 1.6 Funds transmission

Another important area of cash and liquidity management where a treasurer can add value is identifying cost effective methods of cash collection and disbursement for the business. Benefits can be achieved by seeking both internal and external efficiencies.

HAs which have significant internal trading between subsidiaries can save costs by reducing the number and value of external cash transactions which these create. This can be done either by changing the settlement terms (for example, reducing the frequency or method of settlement) or by introducing internal netting procedures so that only net positions require settlement. Where there is a high volume of internal transactions, systems can be used to handle most of the netting administration.

Lenders have adjusted their pricing to reflect their desire to sell electronic products. Compared to the cost of cheques, the cost of receipts and payments by electronic means is significantly lower. HAs can, therefore, try to reduce lender charges by switching to electronic methods of funds transmission. An additional advantage for the user is that the value date of electronic payments is known in advance, thereby making short term cash forecasting more accurate than with cheques.

Lenders offer HAs access to banking systems which allow the treasurer to initiate efficient electronic payments (via services such as BACS, CHAPS and SWIFT) and to monitor bank account balances and movements without the need for direct contact with bank staff. While the use of such systems needs to be properly secured, there are well established methods of control which often prove more secure than traditional methods of making payments.

Banks are often keen to work with their customers to streamline the operational aspects of cash management and will offer help to identify potential improvements. Treasurers should take advantage of banks' extensive expertise in order to seek ways of reducing their own costs and to increase efficiency.

## B2 – Refinancing and funding

The maintenance of an adequate supply of funding for the continued operation of a business is a key concern for all HAs. The issues around major restructuring of finance of the business are complex and for this reason require the advice of corporate finance or treasury specialists. This guide does not attempt to address such issues other than to note here that the key requirements for the finance director and the treasurer are to: manage the selection of appropriate advisers; ensure that the advisers are fully aware of the financial requirement including any need for revolving loan elements and access to specific interest rate hedging options on an embedded basis or by way of a separate swap facility; arrange the provision of information, act as the interface between the advisers and the board and guide the board's decision-making. The finance director and treasurer should also form a view of the likely working relationships involved with each lender.

It is important that the risks of various finance structures are well understood by the HA, both in terms of existing facilities and prospective new finance as most debt comes with specific risks in terms of the covenants and indemnities required by

the provider. The HA should ensure that negotiable financial covenants (eg gearing or interest cover tests) are set at levels which do not unduly constrain its future business and try to ensure that such covenants are set on a common basis (where they are required) across all its facilities, in order to simplify subsequent monitoring and control. These issues are discussed where appropriate below.

Once the overall funding structure is in place, however, the role of the treasurer is to ensure that the HA has continued access to funding facilities which meet the cash flow requirements of the business. This section describes the key activities which should be undertaken to achieve this. These are:

- long term cash flow forecasts
- defining funding requirements
- selecting appropriate methods of funding
- loan administration
- monitoring the status of funding facilities
- lender relationships

It is essential that long term funding requirements are committed well in advance of the required drawdown to avoid any potential last minute problems arising which may cause significant harm to the HA should such a facility not be available

or only be available at a high cost due to market forces. In order to manage this potential funding gap, long term cash flow forecasts are required to determine the long term funding needs and allow committed facilities to be put in place well in advance of any requirement to drawdown on funds. 'Well in advance' for these purposes would usually be between six and 18 months in advance.

However, during times of uncertainty in funding markets, the timescale for arranging new facilities and drawing down from both new and existing facilities can be extended and must be taken account of to avoid liquidity problems arising. The HA will need to take into account the uncertainties around its plans and the finance costs associated with committed facilities.

## 2.1 Long term cash flow forecasts

The driving force for the maintenance of appropriate sources of funding is the long term cash flow forecast. Typically this will be for 25 to 30 years ahead, but should also be prepared on a more detailed level for the next five years and is derived from the strategic plans of the business. The time horizon of the forecast will depend on the planning horizons of the HA, which should be shaped by the needs of its housing stock and development plans.

The long term cash forecast should be updated annually at the same time as the business plan and will draw upon the annual budget (or latest forecast) for its first year of data. The cash forecast is derived from the business forecast of profit and loss, sale or purchase of assets and changes in working capital. The emphasis is on identifying material cash movements rather than detailed transactions. Time periods within the forecast are often monthly in the first year and quarterly thereafter.

Once the business forecast has been approved this should be overlaid with a funding plan which shows what funding will be needed to meet planned cash deficits (or how surplus cash will be utilised).

## 2.2 Defining funding requirements

Based on the long term cash forecast, choosing the type of funding required will involve decisions on five principal issues:

- committed and uncommitted facilities required
- security and restrictive covenants
- maturity
- drawdown and repayment requirements
- interest rate terms and all in cost

### 2.2.1 Committed and uncommitted facilities

Lending is committed, where the lender agrees to provide funds up to a total amount agreed under the facility, a signed facility agreement is in place, and the HA has complied with all conditions precedent to draw down. In return, the borrower pays a commitment fee. Uncommitted facilities are cheaper but funds may not be made available when they are needed.

It is usual to arrange committed facilities up to at least 100% of the expected borrowing requirement from all committed development plans, and often more in anticipation of future opportunities and possible adverse outturns. Arranging finance which is not required for many years will incur costs and commitments fees. Uncommitted facilities can sometimes be arranged as an option to extend the term or total amount of an existing facility. While this can be a useful means of funding at lower cost it imposes risk because the extension or increase to the facility may not be available when required. The proportion of committed facilities to expected funding requirements and over what time period will be a function of the HA's attitude to risk. The smaller the proportion of committed facilities, the greater the risk of being unable to draw funds when needed. The time horizon of committed facilities will

also be important. It is usual, as far as possible, to have long term facilities to cover long term assets, however it should be noted that this does not necessarily equate to having long term interest rate commitments.

### 2.2.2 Security and restrictive covenants

Lenders are primarily concerned with the borrower's ability to repay but will also normally require security over the housing stock of the borrower. Funding backed by security should not be confused with true securitisations. These are discussed briefly below.

As the majority of tenanted property carries a market value which is lower than the vacant possession value of the property, lenders' security covenants in the sector differ from those in the commercial environment. The covenant limits based on the value of HA properties let under assured tenancies are usually assessed either in terms of the present value of their rental income stream assuming continued social housing use (EUV-SH, ie existing use valuation – social housing), or alternatively in terms of their value as loan security with the flexibility that a mortgagee in possession would be able to increase rents or sell vacant properties (MV, or MV-tenanted). Obviously, the security ratio set by a lender will vary dependent

upon its view of the organisation, the basis used for the calculation and credit market conditions prevailing at the time.

The value of the security pledged will change in line with subsequent market movements. In an environment where house prices are falling the MV valuation is likely to decline. If this were coupled with low inflation or deflation the EUV-SH value (with lower than expected rent rises) would not necessarily rise to compensate, it may even fall. In addition, in such scenarios valuers may feel compelled to increase the discount rate employed to arrive at the present value, lowering valuations further.

The dominance of secured lending with asset cover ratios in the HA sector therefore brings its own risks in adverse market conditions. Typical bank facilities will contain provisions to periodically test that the minimum ratio has been met at say five year intervals and also a provision for the lender to obtain a valuation on request (but typically only once per year). In either case, a breach of the ratio requires either a cash deposit or repayment of debt, which can be released or redrawn only once additional security restoring the asset cover ratio is put in place. Similarly, some facilities are on terms which allow a lender to refuse draw downs if they are not

satisfied that asset cover is in compliance with the agreed covenant.

In all these cases available, operating funds can be rapidly reduced, and, depending on how quickly new security can be put in place, the liquidity problems caused for the HA could be serious. HAs who have a pool of assets with proven title charged to a Security Trustee, but unallocated to a lender, are probably in the best position to counter the potential cash draining effects of a property downturn, but all HAs need to evaluate the risks and responses which could be required.

The effective management of property security and its risks is an important element of treasury management, as is the on-going monitoring of property security levels under individual loan agreements. In addition, HAs should not underestimate the length of time that it can take to put security in place before funds can be drawn down. Where appropriate, the use of a Security Trustee, which can allow the HA to prove title and charge properties in advance of allocating them to lenders, allows the HA to build a strategic reserve of security to meet adverse conditions. As a core element of the HA's ability to fund itself and meet any security shortfall without reducing cash, it can significantly reduce treasury risk.

In addition to the security covenant, facility agreements usually include other financial and restrictive covenants. These typically include:

- gearing
- interest cover
- cross default clauses

Failure to comply with such covenants can ultimately lead to the loss of a facility with potentially serious or even catastrophic consequences for a HA. Treasurers should not expect to be able to automatically renegotiate financial covenants should they be breached and lenders should be advised at the earliest opportunity if it is expected that a covenant breach will occur and at the same time be told what steps are being taken to remedy the problem. (This is usually a requirement under the terms of the loan agreement). Whilst historically, funders have been relatively flexible about renegotiation, based on the sector's strong credit history, the outcome in any given case will be influenced by the commercial approach of the funder in question and commercial standing of the specific borrower. Recent experience however has seen a distinct shift in lenders' attitudes in this regard. Therefore, covenants should be monitored on a regular basis to avoid any potential breaches. In practice, the

frequency of such monitoring of covenants may vary depending on the restrictiveness of the covenants.

In smaller HAs this may be easy to monitor through timely financial reporting. In larger HAs this may require establishing a network of information sources and periodically obtaining formal sign-off within the organisation that specific covenants have not been breached.

Most covenants are set by lenders during loan negotiation and require adherence as part of the covenant on an annual basis but with reporting to the lender by the HA on a quarterly basis. Whilst technical breaches may only occur at the year end, the lender will monitor the quarter end position in order to gauge performance against covenants during the year. It would not be unusual for HAs to include within their management, information every month, both the position in relation to the covenant limits as well as a forecast of the next quarter end, and, more importantly, the predicted year end position. This will typically be produced in graphical form showing the predicted movement to the year end. It is essential that any monitoring and predicting of covenants uses the same calculation basis as that stipulated within the loan agreement.

It is generally the case that any renegotiation, default (which does not include a security shortfall, provided the HA can comply with the relevant terms above) or request to the lender to change, extend or exercise its discretion, with respect to any restrictive covenant, can result in lenders seeking changes to the facility margin and/or other terms in return for the concession.

There are many other clauses in banking sector facilities which present risk to the HA. One example is the return on capital indemnity for the bank, enabling it to raise its margin if its capital requirement is raised for the committed loan or to compensate for other regulatory increases in costs. Other examples of potential variation in the HA's costs are the mandatory costs clause, the market disruption clause and the tax indemnity. Each could have an adverse effect on existing funding arrangements increasing the costs of all drawn or undrawn funds if events produce conditions which activate them. All have the result of increasing expected expenditure and adverse cash flow effects of varying degrees of severity. Further details are provided in the Glossary (see Increased Cost Clauses).

Other clauses are potentially restrictive. For example a requirement for lender approval to merge or form subsidiaries could be denied, or approved, subject to enhanced terms for the lender. It is therefore essential to consult lenders before entering into any commitment where such discretionary clauses apply.

Abrupt cash flow variances can also occur where the HA has adopted the wider treasury management rules and entered into stand alone interest rate swap agreements. Such agreements are attractive because they allow the HA to introduce competition into the provision of derivatives. This is likely to produce a better price outcome than using an embedded option in a loan facility to achieve the same overall hedged position. However, it also carries important additional risks. Stand alone derivative agreements can require security to cover the value of the derivatives to the provider, beyond an agreed unsecured credit limit (known as "margin calls"). As with asset cover breaches this would have to be met with cash unless the HA had provided for property security to be used and was in a position to provide this quickly. Cross default clauses (see below) mean that any failure to comply will result in a general default by the HA.

The advantage of inducing competition must also be appraised against the other risks that stand alone hedging introduces when compared to embedding interest rate hedging within the loan:

- with a stand alone swap facility, a failure of the counterparty (even if it is the same as the lender) could result in the loss of a valuable interest rate hedge position without recompense. This does not occur if the derivative is embedded (in a properly negotiated facility), because the loan liability to the failed institution does not change on that institutions failure
- stand alone hedging instruments import the risk of “mark to market” gains and losses on some interest rate hedging being reported in the HAs accounts as accounting standards converge on those which apply to banks. The common use of very long term hedging by HAs exacerbates this risk, as the longer the term of an interest rate hedge the more volatile its current value will be for any given change in the level of interest rates. This does not apply to embedded hedging
- stand alone hedging imposes an additional administrative burden in managing and complying with several separate agreements and separate cash flow streams in addition to loan management

It is likely only large HAs can justify the additional risk and costs of operating multiple derivative facilities independent of its loan facilities. Where there are possible liabilities to deposit margin account cash or property security against a large swap exposure, the HA should take steps to monitor the mark to market value of its exposure on a regular basis, based on the frequency of the mark to market valuations.

Stand alone agreements can require a daily mark to market, others may be less frequent (but in these cases perhaps no more than weekly/ fortnightly). Where the HA is close to or has already suffered a margin call on an ‘out of the money’ swap portfolio (ie its net present value (NPV) is positive for the counterparty) it will need to ensure it has independent means of establishing the portfolio value, perhaps internally, but more likely using external advisors. For the HA fortunate to have a substantially “in the money” swap portfolio (the NPV is positive for it) it would still be necessary to understand the general level of interest rates at which this might reverse and to have access to a pricing source to anticipate and validate the likely cash requirements for risk management purposes.

HAs may seek the ability to use property security rather than cash as cash margin calls are likely

to be more expensive (effectively increasing debt costs) and reduce cash and debt availability for other activities. If this is the case, HAs should consider use of a Security Trustee to facilitate being able to provide property security in a timely manner in accordance with the terms of an ISDA agreement.

Cross default clauses are now commonplace within all loan and overdraft agreements. The practical result of this is that the most onerous covenants in an HA's funding agreements are effectively applicable to all its funding agreements. Note this is not limited to loans, a default on any debt above the minimum set in each loan agreement can trigger the clause (including failure to meet a margin call). HAs and their advisors will therefore need to take particular care when negotiating covenants on any new facility, irrespective of its size. The administrative burden of monitoring compliance with covenants can be greatly reduced if the wording of these key covenants is as far as possible identical in all funding documents, particularly in respect of the definition of items such as net debt, net assets etc.

### 2.2.3 Maturity

The length of time for which facilities are needed is a direct function of the requirement indicated by

the cash forecast, adjusted to allow for a reasonable margin of error, depending on the HA's willingness to accept the risk of having to renew or extend facilities at a time in the future when lenders may be less willing to lend. In order to manage this risk many treasurers will stagger the maturity profiles of their funding, to avoid all facilities coming up for renewal in any one year.

### 2.2.4 Drawdown and repayment

The drawdown and repayment terms of facilities may be as straightforward as a drawdown of the total facility amount at the start of a loan, followed by repayment of the entire sum at maturity (bullet repayment). Lenders will, however, in normal market conditions consider a wide range of drawdown and repayment profiles to meet the needs of their clients, subject to their views on the creditworthiness of the borrower.

Key considerations for the borrower in planning the structure of drawdowns and repayment should be the forecast requirement for the funds and the cash impact of repayment. Drawing down earlier than necessary may result in surplus funds being invested until needed. Deposit rates for a given term will always be inferior to borrowing rates owing to lender spreads, so early drawdown can

lock in an interest loss. (While it may be possible, because of changes in market interest rates, to invest at a higher rate than the agreed borrowing rate, anticipating such a scenario is essentially speculative and is likely to be outside the remit of HA treasury functions.)

Repayment terms should be considered in light of the expected cash flow from the business and the requirements of other maturing borrowings. As mentioned above treasurers should avoid too many facilities coming up for renewal at the same time where possible; if market conditions are unfavourable or the HA's credit standing is temporarily in question it may only be possible to refinance at adverse rates of interest.

#### 2.2.5 Interest rate terms

The interest rate on a loan may be fixed for the life of the loan or may be variable, or somewhere in between. Modern banking facilities typically have extensive flexible options to fix, RPI link, cap or collar interest rates for the whole or part of the loan. Variable interest rates (also referred to as "floating rates") are those that are changed in line with a predetermined arrangement incorporated in the loan agreement. Typically, rates will be set

at some margin over a benchmark rate of interest. Benchmarks include:

- the London Interbank Offered Rate (LIBOR), common for one, three, six and 12 month LIBOR periods may be available for each rate reset at the treasurer's discretion
- inflation based interest benchmark
- lender's base rate; an administered rate changed at the discretion of the lender. In practice this usually follows the Bank of England's base rate changes

Interest rate risk is considered in detail in Section 3.1.

### 2.3 Selecting appropriate methods of funding

The key method of financing in the long term for HAs will be secured / mortgage based finance. However within this classification there are many different types of funding which are available to HAs, from the straightforward bank loan to capital markets based bond issues.

Bond finance often has significantly different covenants from those of a banking facility set out here. Typically, they require adequate cash

flow to repay debt from the assets pledged and several require no valuation or corporate financial covenants. They typically do not have capital return or tax indemnities. The relative stability of cost and risk has however to be balanced against relative inflexibility in other aspects. Bond terms are not easy to change and early repayment will usually cost significantly more than, for example, unwinding an embedded hedge in a bank facility.

Through the 1990s, and early part of this decade, use of the bond markets gradually declined in importance to HAs as bank facilities offered more flexible and competitive products. At the end of 2008 (when this review was undertaken) bond finance has once again become of interest as a result of the reduced availability and increased cost of new bank finance.

For the smaller HA the decision on the type of financing may be straightforward, however where subsidiaries and groups are involved, decisions on funding will be further complicated by deciding which entity will raise the funding. The main points of consideration in deciding which entity will enter into the funding include the legality of intra-group lending and reserves leakage (between registered/ non-registered or charity/ non-charity), formal guarantees, security considerations as well as

repayment and credit spread / cost considerations. Some treasurers may put in place Special Purpose Vehicles (SPV) or trust structures into which housing stock is assigned in order to consolidate the group's position to avoid the constant monitoring of inter-company funding which might otherwise be required. The most common of these structures is the creation of junior and senior trusts into which security is transferred and from which debt is issued.

As well as the longer term funding, in the short and medium term the range of ways in which non-mortgage based funding can be obtained is constantly evolving as financial markets develop and potential lenders try to devise products more closely suited to the needs of different borrowers. Continuing contact with potential lenders and others operating in the financial markets will allow the treasurer to keep abreast of what is available. Potential sources of short term funding are bank overdrafts, money market facilities and term loans. A brief summary of these types of funding is included in Appendix B1.

Other forms of specialised funding for larger HAs involve the issue of securities directly to investors through the capital markets. Similarly, security based capital markets funding has been obtained using

conduit organisation structures such as THFC, HAF and HALOS to allow HAs a window to the capital markets where size had previously been a restriction. Interest rates for capital market based funding depend on market conditions as do those for bank finance and can also vary according to credit rating. There can be significant costs involved in setting up such a programme. This may include the internal costs and time spent on obtaining a credit rating for an issue and the ongoing management of ratings agency relationships, as well as the external costs paid to advisors and underwriters as part of the market offer. The securities can be in the form of commercial paper or bonds, including bond securitisation. Securities are briefly summarised in Appendix B1.

For the HA sector relying on only one funding source, whether banks or the bond markets, is for obvious reasons risky and can lead to disruptions in that source affecting the availability and cost of new, and, in the case of banks, possibly even existing finance. It is for the individual HA to determine the relative advantages of its potential funding sources.

Other common forms of funding include finance or operating leases, which generally provide finance for specific assets, however these are not in common use in the HA sector.

The mix of different forms of funding should be selected and maintained to meet the business needs and cash flow expectations of each individual HA. For the funding that is in place there needs to be a suitable infrastructure for utilising the available facilities in the best way and for ensuring they are properly administered.

Some treasurers may have inherited portfolios of loans which include some fixed interest rate debt at what now seem relatively high interest rates. In deciding whether or not to repay these early, consideration must be given to the high breakage and early repayment costs which will at least equate to the lender's view of the net present value of its future loss of net interest income.

It is sometimes possible to “blend and extend” high fixed rates by taking into account the value of the existing fixed rate in setting a new rate over an extended period. Due to accounting requirements, however, in many cases the cost of simply breaking a fixed rate will be recognised as expenditure in the year of early repayment rather than an ongoing interest cost. Whilst this will be a significant cost in the repayment year, under certain circumstances treasurers may accept this expenditure as a ‘deck-clearing’ exercise, thus lowering the overall interest

burden on the HA in the future and improving current cash flow.

Those HAs considering early repayment should always perform adequate due diligence to assess whether, after tax, re-financing and breakage costs are outweighed by future cash flow savings and the impact on covenant compliance. It is vital that any breaches of covenants brought about by the re-financing are agreed with lenders in advance.

If the mix of funding facilities has been well structured the borrower will have a degree of flexibility in choosing which to draw down and when. To guide such choices it is usual to establish detailed procedures for day-to-day decision-making which take into account:

- matching the funding to the amount and timing of the cash flow needs
- obtaining competing interest quotes on hedging interest rates
- allowing for the impact of commitment fees in comparing quotes
- spreading the use of facilities between providers
- monitoring the all-in cost of different funding sources

The procedures will also need to recognise and address potential conflicts between different objectives implied by the elements above (for example, spreading the use of facilities between providers and minimising the all-in cost).

## **2.4 Loan administration**

Loan administration should specifically include processes for the management of drawdowns, security, balances, capital repayments, interest and fees.

A process for recording and checking the security applied to and activity within each facility also needs to be established.

These functions should be supported by the development of electronic databases and analysis tools appropriate to the complexity of each HA's loan portfolio, to include covenant and compliance data and diaries, funding availability, payment data and key costs and terms. The requirement is not only for good day to day and overall strategic management but to ensure that essential data and knowledge is readily available not only to the treasury manager but to any temporary or permanent successor on a timely basis. Good

loans management should not rely upon an expert individual treasurer's personal knowledge.

For larger HAs this may ultimately require bespoke software systems but may be use of simple spreadsheets or manual records in smaller HAs.

Each drawdown should be carried out under appropriate authority and be recorded and confirmed with the lender. Controls should be in place to prevent diversion of drawdowns to unauthorised accounts such as creating standard settlement instructions directing funds to specific accounts which can only be amended via the funder receiving the necessary authorisation.

Loan balances should be frequently monitored and reconciled to lenders' statements, at least monthly, with differences followed up swiftly.

Interest due (and fees) should be calculated according to the terms of the loan agreement and form part of the reconciliation with the lender's advices and statements.

A key part of loans administration is ensuring that all payments are made on the due date. Failure to do so is a default, which could lead a lender to seek redress. At a minimum persistent failure to

pay as required, is likely to colour lenders' view of an HA adversely. Similarly, the HA should ensure it requests drawdowns and where appropriate interest rate changes (e.g. on LIBOR linked rollovers) in compliance with the agreed notice period.

While lenders might be expected to have efficient and accurate processes of their own, good practice suggests that the treasurer should not rely upon these.

## **2.5 Monitoring the status of funding facilities**

The process of managing an organisation's funding should be supported by procedures for providing timely and accurate reports. These should include operational reports to facilitate loan administration and information to support the monitoring of various aspects of the HA's funding position. Reports should provide information concerning:

- facilities available, compared with forecast cash requirements
- available security and the efficiency (loan to assets ratio) with which security is being applied and loan facilities which have excess or possibly too little security
- the spread of maturities

- the interest rate basis
- utilisation over time
- the overall cost of funding, split by different sources, the weighted average cost of funding and impact of a change in interest rates
- compliance with loan covenants and internal controls

Reports should be provided in levels of detail to suit different recipients according to their responsibilities within the overall control framework.

## 2.6 Lender relationships

HAs depend on lenders to provide the tools which enable treasury to pursue its objectives of managing the funding requirement, liquidity and risk. So long as the HA can satisfy the credit standards of the lenders with which they wish to deal, most treasurers in the past may have faced an extensive range of lenders from which a selection can be made. This position has changed however in recent years with fewer lenders being willing or able to lend to the sector, a risk exacerbated in any market downturn. For the HA, it is most important to ensure that it obtains the services and the facilities it needs on terms that are acceptable and consistent with developing long term relationships. The board, and in particular relevantly experienced board members,

can have a key role to play in establishing and maintaining effective relationships with lenders.

The needs of HAs for banking services can broadly be distinguished between those relating to funds transmission and those concerned with the management of funding and liquidity risk. Funds transmission embraces all the activities involving the movement of cash, such as collecting amounts due from tenants, paying creditors and handling the bank accounts through which funds flow. The management of liquidity and risk involves core banking activities, such as providing funds to finance the business, allowing for the investment of cash and offering hedging instruments to manage risk.

The treasurer will need to take into account the differences between these various activities in assessing which lenders should be chosen to work with the HA. The treasurer may look at the following factors in determining whether a lender is likely to provide a stable and successful relationship for the HA:

- the delivery of a consistent and high level of service, as measured for instance by the efficiency of transactional processing and the speed of response to the HA's demands

- the reasonableness of the pricing for the services provided, in whatever form charges are being made
- demonstrable evidence that the lender is making a long term commitment to the sector and more specifically the individual HA, so that it can be expected to provide support during difficult as well as good times.

Where HAs and lenders work successfully together, this is often described as 'relationship banking', which implies that a long term commitment is being made by both parties. In almost all cases this is based on a high level of service being provided for a price that is acceptable to both sides. Such a relationship is often contrasted with 'transaction banking', where HAs choose particular lenders for the competitiveness and overall value of specific services or transactions being offered. While this can be of great value to the HA, in the long term it may not prove possible to rely purely on such transactional arrangements; the treasurer should therefore ensure that the HA has strong relationships with its key lenders.

It is important to understand the motivation and relationship that a lender has with a HA; it needs to know if there is a valued relationship or whether it

is simply part of a portfolio, where there is limited opportunity for negotiation.

HAs need to consider a number of elements with regard to lender relationships, specifically including the following:

- choice of funder
- opening the relationship
- managing the relationship
- what will drive the allocation of business
- assessing the lender's services

These elements of the funding relationship have not been considered in detail here, however further discussion of these issues is included in Appendix B4 to this guide.

### **B3 – Interest rate risk**

Generic interest rate risk is essentially the risk of increased interest expense (or reduced interest income) because of changes in market interest rates. This can affect HAs whether they are net lenders (with cash deposits) or, more commonly, net borrowers. Interest exposure is a measure of the amount of borrowing (or investment) that is subject to interest rate risk.

Interest rate risk also arises in HAs as a result of the inherent mismatch between the various sources of income and the associated funding costs. HAs have core RPI-linked earnings and costs, and funding costs which typically will be LIBOR linked or fixed rate. Unless a HA borrows based on RPI and funds itself solely by reference to its core net rental income, its debt cannot be perfectly hedged to its expected income stream. As the HA increases its development it increases the mismatch risk it is exposed to, in particular by assuming a given level of funding cost and average RPI in assessing the viability of its long term investment and often by making sales assumptions etc. If its nominal funding cost outturns are higher and/or RPI linked income is lower than assumed (ie the real terms funding cost is higher) the HA may find its debt costs exceed the return on its investment, reducing or even eliminating its capacity to grow.

The outcome of this mismatch would be favourable of course if the HA's out turn real terms cost of funds is lower than its development assumption, rewarding the risk taken. However, the HA must be aware of both the extent of potential adverse outcomes and its capacity to overcome them.

This may lead to a conclusion that RPI linked funding is the solution. There are, however, drawbacks to RPI funding – it may be expensive and limited in terms of availability, depending on market conditions, and some RPI linked debt structures can have adverse accounting treatments. As a result, many HAs will continue to need to manage the mismatch between RPI linked income and nominal interest rate risk and use a mixture of interest rate bases in their funding, but to the extent that they do not hedge on an RPI basis, they should ensure they are not importing into their overall business plan an unacceptably risky RPI “floor” rate below which undue financial constraints will arise from debt costs which do not vary with inflation.

Where such uncertainty exists, treasury management's goal should be to ensure that the risk arising from interest rate mismatch does not unduly compromise the HA in adverse economic circumstances. The level of acceptable risk will be set by each HA in its treasury policy and will be informed by techniques such as sensitivity testing of the impact of changes in RPI.

While the interest rate terms (fixed, RPI-linked or variable) may be governed to a large extent by the type of funding that is available to the HA, the treasurer can take action to change the type of

rate - either by altering the type of funding or by using interest rate hedging instruments (interest rate derivatives). Whatever action is, or is not taken, it is important that the HA ensures that its resulting exposure is commensurate with its underlying willingness to accept risk.

This section focuses on the interest exposure of net borrowers since this is the position of the majority of HAs and the area where failure to manage exposures is likely to have the most serious consequences.

The use of derivatives to manage interest rate risk is an area where associations are likely to need specialist professional advice. This may include advice on the type of instruments that are currently available in the market and those that are suitable to effectively manage the risk posed by movements in interest rates. HAs may also need specific advice on the pricing of derivative instruments to ensure that they achieve value for money, ie that instruments are not overpriced or are priced in accordance with the terms of the contract.

HAs may also need to retain specialist treasury advisers to monitor their mark to market positions.

### **3.1 Basis risk**

Basis risk is the element of interest rate risk which arises because two different interest bases do not change in similar ways. An example of this is when a HA borrows from a bank using the bank's base rate as the reference interest rate, and then hedges the exposure into a fixed interest rate by buying a six month LIBOR based swap. (A swap is an instrument that, on a notional principal amount for a fixed term, requires the swap buyer to pay a fixed rate for the term of the swap and receive a floating rate in its place). The hedge will achieve the desired fixed rate on the paying side of the swap, but on the floating rate side the amount received as the six month rate may (and most probably will) differ from the bank's base rate, even though the latter will move approximately with the LIBOR rate over time. The HA has taken basis risk in the floating leg of the swap.

Basis risk can arise whenever a hedge is put in place which does not exactly match the risk profile of the underlying position being hedged. For example, if a HA borrows using a LIBOR based loan expecting the real (ie inflation adjusted) interest rate it pays to be constant, it might consider that the loan is naturally hedged by its inflation-linked income. It may be true in the long run, that variable

rates reflect a real interest cost which varies much less than its nominal cost (variable rates are the main instrument of central bank policies targeting inflation) but the actual short run positions can be quite distant from the long run average. Therefore, any relative movement between LIBOR and the inflation rate will open up basis risk. In this case, the basis risk could be overcome by borrowing using an RPI (ie inflation-linked) loan. Alternatively, the use of interest rate caps can reduce short term volatility.

In the rest of this Section where we discuss interest rate risk it is assumed that any basis risk has been accepted by the HA. Where this is the case, such an acceptance should be documented within the Treasury policy.

### **3.2 The effect of interest exposure**

As described in Section B2, the interest rate on a loan may be fixed for the life of the loan or may be variable or fixed for only part of its life and then revert to variable (and/or be refixed). For a HA whose borrowing is at variable rates of interest, a small increase in those rates could radically erode its post interest income and reduce its ability to maintain its housing stock. Changes in interest rates may also lead to covenant default. It is prudent to manage interest rate exposure so that covenants

are protected against any reasonable movements in interest rates. However, the solution may not be to borrow at fixed rates of interest. A HA borrowing at fixed rates may, for example, become locked into high interest costs at a time when rates fall.

Interest rate management involves a trade off between long and short term risk, and decisions over the approach eg fixed versus floating rates, versus RPI linked, must be balanced with the rate setting flexibility and duration of the funding sought. The board should therefore set a policy which aims to establish ranges for the quantities of debt which are fixed, floating or RPI linked and the use of interest rate derivatives that may be purchased to rebalance the interest rate exposure between these categories from time to time. In particular, market opportunities to obtain funding of one or other of the various types, at attractive cost and risk relative to the business plan assumption, should be monitored in considering how the debt portfolio is balanced. A sensible policy will not impose a requirement, for example, to undertake more fixed rate, without regard to the relative value compared to competing rates.

Capital values are more volatile for fixed rate instruments that have a long duration. This may have a significant future impact since derivatives,

which are currently held off balance sheet, may be required to be marked to market under IFRS, causing movements in their capital values to be recognised in the income and expenditure account. However, a derivative that matches a specific loan and alters its interest rate characteristics, will have recognition of its value changes deferred until repayment of the underlying hedged loan.

### 3.3 The need to manage interest exposure

HAs should manage their interest rate exposure so as to reduce the future volatility of the organisation's cash flow. Interest rate management should obviously not be viewed purely on a loan by loan basis, but should be conducted with reference to the interest rate exposure across the entire organisation. With this in mind, it is usual to take a portfolio approach to interest rate management, to allow the treasurer to obtain a mix of funding and hedging that best enables the HA to manage interest rate risk by having the optimal interest rate and inflation sensitivity profile.

Key elements to be considered in managing exposure to interest rates are:

- interest rate objectives

- defining measures of exposure
- setting operating limits
- identifying permitted hedging instruments
- monitoring limits and performance.

In defining measures of exposure, this can be based on fixed or variable rate debt, or alternatively measured by whether a loan facility is hedged or unhedged, where typically unhedged loans, can be defined as variable debt plus hedged debt with less than 12 months of the hedge remaining.

#### 3.3.1 Interest rate objectives

A HA must determine at board level what are its objectives for interest exposure management.

Possible objectives might be to:

- minimise interest cost: This requires an accurate forecast of what rates will do in the future. Forecasts are subjective and will sometimes be wrong, for example backing a view that rates will fall by opting for variable rate funding may completely achieve the objective of minimising interest expense or may result in maximising it
- certainty of interest cost expense: For example, actual interest rates may be fixed or otherwise hedged in advance such that no more than, say,

20% of total interest expense can vary from the annual budget

- to meet loan covenants
- to establish known funding costs

Interest rate objectives will differ depending on the circumstances of the HA. A HA which has forecast a high level of development or maintenance expenditure may have very little capacity to withstand changes in net interest expense and may, therefore, see certainty as being of paramount importance. A HA with less ongoing expenditure requirements may find variable rates of interest perfectly acceptable.

### 3.3.2 Defining measures of exposure

#### Fixed rate percentage

The most common method of defining exposure in borrowing is to measure the proportion of fixed rate borrowing to total borrowing. However, the definition of fixed rate is difficult – for example, a fixed rate loan maturing tomorrow which has to be replaced, will reflect current interest rates on replacement and therefore in practical terms becomes variable in nature. Therefore, the duration of the funding is an integral part of its definition, and significantly impacts the exposure of the HA to interest rate risk.

As a general rule, a 'fixed' rate is fixed for more than 12 months; a 'floating' rate for 12 months or less.

HAs using this 'fixed rate as a percentage of total borrowings' approach to managing interest exposure, should consider carefully the issues raised in this section. Subject to this they should analyse their funding into future time periods (for example by years). This analysis should not include assumed future funding for assumed future development as this imposes a risk of over hedging at fixed rates. The length of the periods may be varied to reflect greater detail where maturity is approaching. For each period the total projected funding requirement is shown, together with the amount of that funding for which the interest rate has already been fixed. The 'fixed rate' borrowing as a proportion of the total borrowing requirement will reduce period by period into the future as each loan reaches its next interest reset date (either because it has a variable rate which is reset or because the loan reaches its maturity date) and drops out of the analysis. Using this analysis, control can be exercised by setting limits on what proportion of the total borrowing requirement must be fixed in respect of each future time period (for example, 60% of year one, 50% of year two and 40% of year three).

Capped funding is floating rate funding where the floating rate is capped at a fixed level, thus protecting the borrower if the reference rate (say LIBOR) goes above that level.

Capped funding is often incorrectly defined by HAs as fixed funding. An extreme example of why this is not the case, could be a loan that was capped at an interest rate of 10% for five years when floating rates over the same period were between 4% and 6%. This was effectively a floating rate loan.

#### Gap analysis and value at risk (VaR)

These techniques (in particular gap analysis) may be of use to HAs and are discussed in appendix B6. Both techniques are related to interest rate management and evaluating the risk of variation in interest costs.

#### Duration

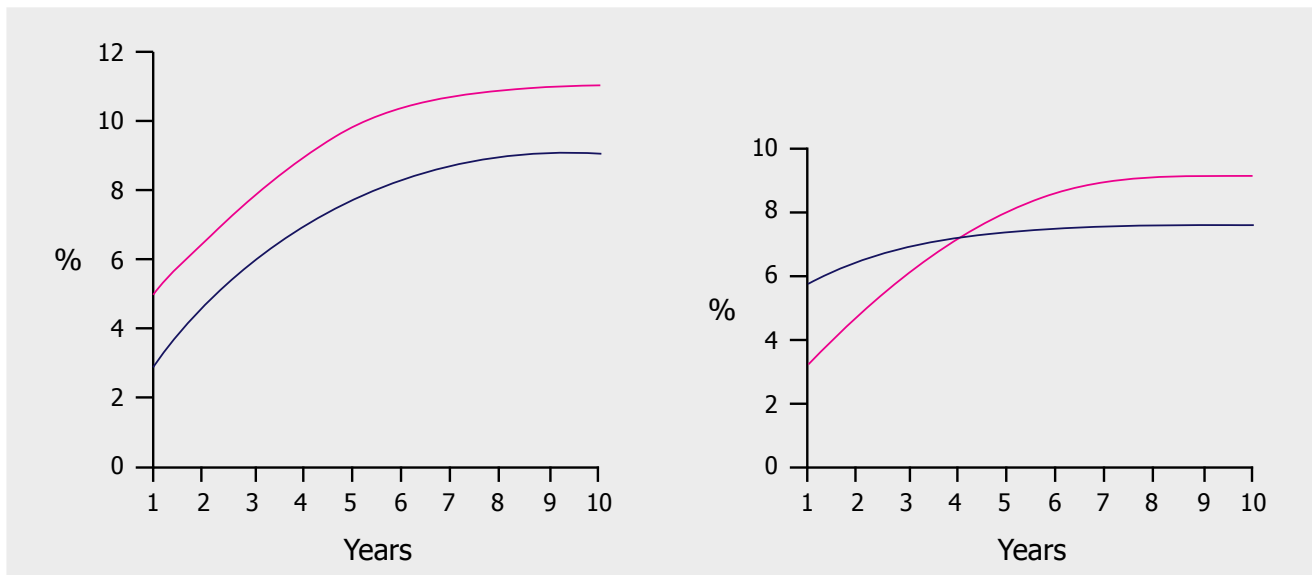
There are several variations of this mathematical technique which measures all interest bearing instruments on a common scale of the average life of their cash flows. It is a measurement of how long in years it takes for an instrument to be repaid by its cash flows. Unlike gap analysis (see above) this technique can be conceptually difficult to grasp and

is only likely to be of use in large HAs managing portfolios of financial assets and liabilities.

Profit value of a basis point (PVBP) is a technique which is related to duration but which results in a more understandable measure of exposure. This shows, for a given loan, what would be the additional cost of a one basis point (one hundredth of a percentage point) parallel movement in interest rates across the yield curve. (The yield curve is given by the interest rates, on say Government debt, plotted at a specific time for debt maturities from very short to several decades). This measure of the sensitivity of a HA's position to a given movement in interest rates provides a useful guide to the income and expenditure impact of interest rate decisions. A similar technique, which is often used to assess the magnitude of interest and inflation exposures, is to calculate the impact of, say, a 1% parallel change in interest rates and a 1% change in inflation. The more sophisticated HAs could further adapt this to look at non-parallel shifts in the yield curve. Examples of shifts in the yield curve are shown in Diagram 1.

For this approach to work, a linkage must be assumed between movements in inflation and interest rates. In practice a rise in inflation may not be followed closely by a rise in interest rates.

Diagram 1 Yield curve



### 3.3.3 Setting operating limits

Once the preferred measure of interest exposure has been selected, it remains for the board to set limits beyond which it does not wish the HA to be exposed. A practical approach to limit setting involves modelling the effects of different rate movements on income and expenditure (and any other relevant target indicators, such as interest cover ratio). Limits may be set as absolute values, or real (ie inflation adjusted) values. In the latter case correlation indices linking inflation and interest rates will need to be assumed. Limits that constrain

exposures within the range of the board's appetite for risk can then be set. It is usual to define one set of limits within which the treasurer may operate, supported by further tiers of limits, each subject to authorisation from a progressively more senior level of management.

### 3.3.4 Identifying permitted hedging instruments

The interest basis of a loan is ordinarily set at inception. To obtain different interest rate terms would require repayment or replacement of the loan in the absence of derivative instruments. Derivative

instruments allow users to change their interest rate profile without changing their underlying loans. It is essential that both board and treasurers fully understand the implications of the risks they are undertaking when entering into hedging instruments, and the importance of this point cannot be overstated.

It is imperative that the board and management fully understand the risks and implications of the transactions they are entering into, including any long term, as well as initial, impact on the business plan.

HAs must ensure that the type of instrument being entered into is in accordance with TSA's regulatory requirements, as set out in the relevant regulatory circular on treasury management and derivatives, as well as their own constitutional and policy documents. Legal advice should be sought as appropriate.

#### Embedded derivatives

Embedded derivatives are common in HAs' loan agreements. For treasury risk management purposes these should be treated no differently from stand-alone instruments as, from a risk perspective, they may expose the organisation to

very similar positions as stand-alone instruments. In practice, the only difference may be the level of security which the counterparty requires, as it is common for embedded instruments to require less in the way of security than stand-alone instruments. Derivatives which require security, should they move into an out-of-the-money position, will require careful management to ensure that an adequate level of security is available and correctly put in place.

Examples of hedging instruments are:

- interest rate swap – is an agreement between two parties to exchange interest rate flows. For example, a HA with a variable rate loan which it wanted to change to a fixed rate of interest would enter into a swap with a counterparty. A swap is based on a notional amount of principal. Under the terms of a swap the HA would contract to pay to the counterparty interest calculated at an agreed fixed rate of interest on the notional principal. In return, the counterparty would contract to pay to the HA interest calculated at an agreed variable rate (usually a margin over a LIBOR, typically 3 or 6 month LIBOR) on the same principal. There is no exchange of principal. Thus the HA can use the inflow from the swap to discharge its variable

rate obligation on the underlying loan and is left with only the obligation to pay interest at the fixed rate determined by the swap

- forward rate agreement (FRA) – is an agreement to pay (or receive) an agreed rate of interest between two future dates. A HA may, for example, use this when it knows that it will be making a six month borrowing starting in three months' time and it wishes to lock in a known interest rate today for that future borrowing. Once the FRA has been entered into, the HA will be committed to the agreed rate, which may or may not turn out to be better than the actual market rate in three months' time. What the HA has achieved is the certainty of a particular borrowing rate for that future time period
- interest rate futures contract – is very similar to a FRA but rather than being an over the counter instrument, it is exchange traded. Essentially, a futures contract is an agreement to enter into a notional loan (or deposit) based on a fixed rate of interest starting on the delivery date of the interest rate futures contract. On expiry of the contract, settlement will be performed via a "cash settlement", that is payment of the difference between the initial futures price/ rate and the underlying interest rate on the settlement date
- interest rate options – offer greater flexibility, at a price. Purchasing an interest rate option does

not commit the HA in the same way as a swap or FRA. In return for payment of an up- front premium, the buyer has the right, but not the obligation, to hedge at an agreed rate. Thus the purchaser can benefit from falling rates of interest but be protected from rising rates.

Needless to say, this attractive instrument is not cheap and its use would normally be restricted to special circumstances. An example of this would be where the potential interest exposure is large but there is also a high degree of uncertainty over whether the exposure will materialise

- specialised forms of options – include caps, which set an upper limit on interest costs over a period of time, and collars, which provide somewhat similar protection as caps but at little or no up-front cost. This is achieved by the buyer of the collar not only taking a cap but also selling a 'floor', thereby agreeing to forego some of the benefit if interest rates move in their favour. (see Diagram 2). There have been a number of well publicised disasters surrounding the use of swaps, options and related derivatives but these nevertheless represent important and useful tools for managing risk. They are very widely used by corporates in the FTSE 250 as part of their interest rate management activities and their use need not carry any untoward risks. The key to successful use of such instruments is:

- to restrict usage to well-understood, pre-defined and board-approved instruments
- to use them only to reduce or manage risk
- to monitor closely the effects of their use

### 3.3.5 Monitoring limits and performance

The significance of interest rate risk is such that it requires board involvement in setting objectives and defining the limits within which exposures will be managed. This involvement should encompass regular reporting of actual positions compared with limits and of hedging activity undertaken. Such reporting is outlined in Section A2.

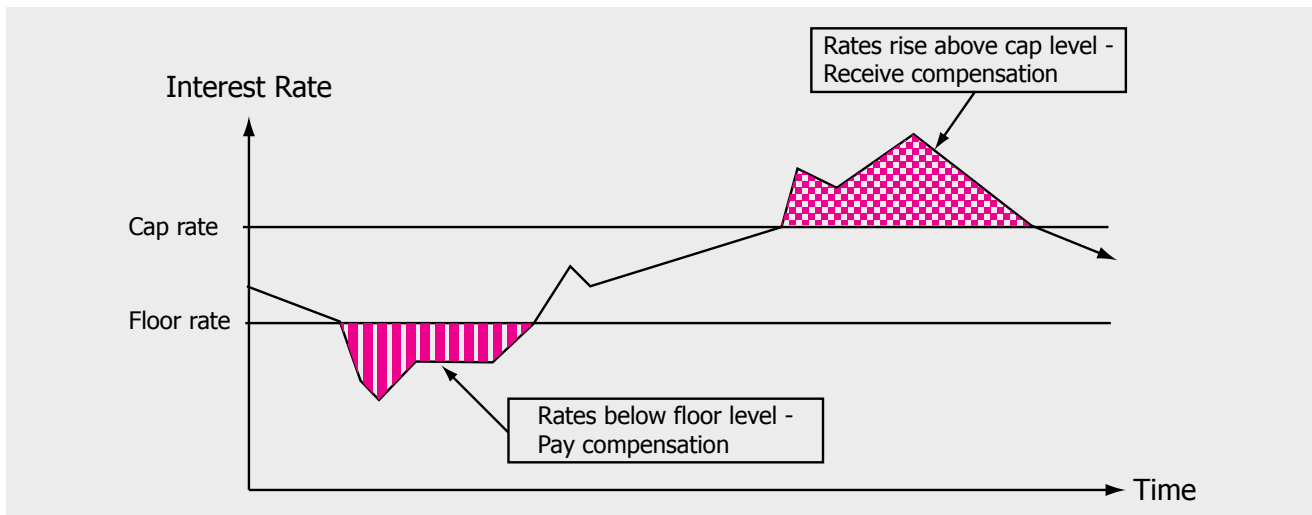
### 3.3.6 Lender embedded options

In recent years HAs have made use of lender cancellable fixed rate swaps. These structures provide a discounted long term fixed rate in exchange for one or more embedded options held by the lender. Each option gives the lender the right (but not the obligation) to cancel the HA's fixed rate on a specified future date. The economics of whether the option(s) will be exercised depend upon future fixed rates at the exercise date(s). A Lender option probably will be exercised if, at the exercise date, the discounted rate is lower than the then current fixed rate for the term, adjusted for the

then value of any remaining options in the structure. If the then current fixed rate is lower the option is unlikely to be exercised.

In one variant these cancellable swaps are undertaken by reference to the underlying swap rate and the HA pays the discounted swap rate plus agreed lender facility margin. If the lender exercises its option, the loan reverts to LIBOR plus the agreed lender facility margin for the balance of its term. In considering the risk and reward balance of such a structure, the HA can focus on the relative value to its business plan of the discounted swap rate (which may last only for the period to the first lender option) versus the equivalent (uncancellable) rate. The HA must also be content with the cancellable rate on the assumption that the option(s) are never exercised and recognise that the structure is more expensive than a conventional fixed rate swap to close down if not required because the lender will need to be compensated for the unexpired option(s) as well as the present value of the fixed rate. The lender options also reduce the HA's control of its future funding costs, which should be taken into account in assessing the extent to which these structures are employed within the overall debt portfolio.

Diagram 2 Interest rate collar



In other variants, the lender is granted option(s) either to re-price the discounted fixed rate or allow the lender to cancel the discounted rate and require repayment of the debt. These variants typically use a long term (40-60 years) interest only structure. In the re-price option type the lender offers a new fixed rate (set at its discretion) at each option maturity and the HA must either accept that rate or repay the debt within an agreed period (sometimes within 12 months). All the considerations discussed above also apply to these structures, but in addition, they impose a potential requirement to refinance, explicitly in the case of a credit break or implicitly if any future rate quoted is unacceptable. The

HA must consider the costs and practicalities of ensuring it is able to refinance if necessary within the required timescale. In some of these structures, the lender margin is included in the quoted rate and the HA will find the break costs of the transaction, (should it wish to break other than when the lender has exercised an option) more expensive as it will include the present value of the lender's margin, the underlying discounted rate and outstanding lender options. In addition, entering into either of these types of lender options within an existing long term facility will potentially reduce the availability of that part of the debt to the first option exercise date.

## B4 – Counterparty credit risk

In addition to protecting the HA against the financial risks arising from its business, the treasurer also needs to control the risk arising from dealing with counterparties in treasury transactions. Counterparty risk (also referred to as 'credit risk') is the risk that a counterparty may fail, resulting in financial loss to the HA.

The counterparty to a financial transaction in this context is the entity with which the ultimate transaction risk resides. This may be a bank, building society, local authority, company or even a sovereign state. Before entering into any treasury transaction a HA should have a policy for managing counterparty risk which takes into account:

- the potential for loss
- the creditworthiness of the counterparty
- the amount the organisation is prepared to risk with each counterparty

The HA should then ensure that it has procedures for implementing policy and monitoring compliance.

### 4.1 The potential for loss

Consideration of the different types of transaction into which a HA may enter shows that loss resulting from the failure of a counterparty can arise in many ways:

- cash held in, or being received into, current bank accounts may be frozen for a period of time causing loss of interest
- the principal amount of funds in current accounts or on deposit may be permanently lost
- a hedging contract (for example an interest rate swap) may become unenforceable requiring the HA to replace the hedge at current, less favourable rates
- capital loss from early settlement of a derivative instrument which is no longer effective
- funding facilities upon which the HA relies may be withdrawn suddenly and have to be replaced at an unfavourable time for the HA

Procedures for implementing policy:

In order to protect against such losses and monitoring compliance, it is essential to have a

policy which sets down the approach to controlling exposures to counterparties. This should include which counterparties the HA is prepared to use, the definition and measurement of the exposure and the maximum amount of risk that it is prepared to take with each counterparty.

#### **4.2 Creditworthiness of the counterparty**

It is normal practice to identify acceptable counterparties by reference to information from credit rating agencies. These assess the financial results, business environment, international risks and strength of management of corporations and financial institutions, in order to rate the organisation's ability to repay its debt. Each rating agency publishes details of exactly what is being measured and rated.

The most widely used agencies in the UK are Moody's, Standard and Poor's, Fitch IBCA and Bankwatch. Each has a slightly different system of ratings but follows the same basic principles. Moody's and Standard and Poor's ratings have been included in Appendix B2 for reference purposes.

#### **4.3 Setting counterparty limits**

The basic list of acceptable counterparties may be determined according to credit rating. For example, 'commercial paper may only be bought if issued by counterparties with an A1/P1 rating' (A1 being Standard and Poor's and P1 being Moody's short term rating). A1/P1 ratings are not suitable for long term exposures, for which bond ratings should be used. However, it is necessary to go beyond this and specify how much the HA is prepared to risk with each listed counterparty. The starting point for calculating this is usually the maximum amount that the HA is likely to have at risk at any one time.

This amount can then be spread between the list of acceptable counterparties. Following such an approach will help to avoid concentrating too much risk with a single counterparty. As with other treasury policies, the approach to setting limits for counterparties should be approved by the board and this should include provisions for removing or adding counterparties. It would be expected that the authority to suspend transactions with a counterparty or remove it from the list would be delegated to the treasurer or finance director, to enable a swift response to adverse information, while the authority to add a counterparty may be reserved for board approval.

#### 4.4 Measuring counterparty exposure

As a new transaction is entered into, it will be necessary to check the total outstanding for the relevant counterparty against its overall limits. This is straightforward in the case of deposits where the amount concerned is the principal plus any interest due. For derivative transactions, such as an interest rate swap, the principal is not the amount at risk, but rather the potential cost of replacing it, which is likely to be far less than the principal amount. HAs are predominantly net takers of credit and it is therefore within derivative transactions that the most significant counterparty exposure resides. The inclusion of the impact of such derivative contracts in counterparty limits can be handled in one of two ways.

The simplest approach is to take only a percentage of the principal value of a derivative contract, say 10%, to reflect the potential cost of replacing it. If this is done, then one overall counterparty limit can be used to cover both deposit-type exposures and derivative exposures. However, as different types of derivative will cost differing amounts to replace and hedge different risks, different percentages may be applied depending on the instrument in question. The exposure for HAs can be significantly higher than 10% because of the duration of exposure.

The alternative is to mark-to-market the instrument and possibly add on a percentage for future movements or replacement. This is clearly the more precise measure as it values the derivative exposure in real terms.

In either case, the full settlement amount of the derivative transaction should be added to the deposit-type exposures on settlement day to reflect the settlement risk.

The frequency of review of counterparty exposures to limits will very much depend on the risk appetite of the board, the level of exposure and the frequency and value of any dealing or movements in balances. In practice it is expected that most HAs will wish to review this on a monthly basis.

Another difficulty arises on measuring the level of exposure to counterparties which are used as short term funders rather than asset related counterparties. This is especially important for those HAs which manage their liquid cash close to a nil position and therefore rely on overdraft facilities on a frequent basis. In practice, most HAs will measure this risk as the undrawn balance of committed facilities, such as the available overdraft limit.

## 4.5 Value of managing counterparty risk

It should always be remembered that applying counterparty risk management techniques can only reduce the risk, not eliminate it. Unfortunately, circumstances will continue to conspire to cause the failure of counterparties. What can be achieved, is a reduction in the potential loss in such circumstances, through selection of strong counterparties and the careful application of limits.

## B5 – Control and operational risk

Failure of internal controls can be identified as lying at the heart of many major treasury disasters.

Implementing a best practice approach to treasury control is key to reducing the possibility that treasury management actions will at some point be responsible for a major loss of the HA's funds. Developing standards of public disclosure and reporting are also putting pressure on the board and in particular the finance director to demonstrate that risks are measured and internal controls are in place.

This section considers the following topics:

- importance of treasury controls
- failures in control
- elements of the control framework

## 5.1 The importance of treasury controls

At the operational level the treasurer's activities typically involve high-value transactions requiring cash movements which may individually be material in relation to the HA's net worth and to its annual net income.

The treasurer will also be responsible for many smaller cash movements resulting from routine events, such as the periodic payment of interest to a lender, which collectively have significant value. All such transactions carry risk of loss through fraud or (more likely) error. The objective of the treasury control framework is to ensure that the HA is not exposed to any unacceptable risk of loss of value (today or in the future) through treasury activities. Controls must address both the management of financial risks, typically concerned with interest rate and counterparty exposures, and the procedural operations of treasury management itself, in particular the risk of loss of funds.

## 5.2 Failures in control

It is helpful to consider the impact of failures in treasury controls as a basis for understanding the importance of maintaining a comprehensive control framework. Failures in control may occur at a financial risk management or treasury operational level.

Examples of control failures have been given in Appendix B5.

In order that the HA is not exposed to these and other examples of control failures, a robust control framework should be in place; the rest of this section considers what such a framework should include.

## 5.3 Elements of the control framework

There are a number of key elements to an effective control framework, these are:

- policies
- procedures
- limits
- mandates
- segregation of duties
- reconciliation

- confirmation
- documentation
- management reporting and compliance monitoring

### 5.3.1 High level policies

The documentation of treasury policies serves a number of critical purposes, including defining the overall parameters within which treasury is to operate and the principles to be applied in controlling treasury. The existence of documented policies is the first key element in treasury control. Policies should reflect:

- board approval for their content and a process to ensure that such approval is kept up-to-date
- clear terms of reference for treasury, including role definition, delegated authorities and responsibilities
- clarity that treasury is to operate as a cost or service centre
- definition of the HA's risk appetite

Once the treasury policies have been established, they should be available in written form to all those involved and their existence and importance should be properly communicated within the HA.

### 5.3.2 Detailed policies and procedures

Detailed treasury policies and procedures give expression to the way in which high level policies are to be implemented. The most effective treasury procedures are those that are comprehensive enough to establish precisely how treasury policies are to be reflected in specific processes but remain sufficiently 'user-friendly' to form a practical working document.

All procedures should be linked by cross-reference to the relevant policies and should define the key responsibilities of staff members in the context of the overall organisation. The level of detail should be sufficient to enable the documentation to introduce new staff to their work and allow temporary staff to move into roles as required. The procedures should define:

- the sequences of actions required to perform the daily work within treasury (for example, the daily calculation of the anticipated closing cash position)
- where treasury's information is to be found (for example, the details of bank accounts, external information on market rates and basic data on how financial instruments are to be used)

- the limits on treasury activities (which are discussed further below), clearly demonstrating the levels of authority that are in place for undertaking transactions and how situations requiring dealing in excess of limits are to be handled
- dealing, covering in detail each stage of the process (for example explaining that in order to obtain competitive quotes counterparties should be put on hold, rather than called separately) from deciding to deal, through to completing a transaction
- recording information in connection with dealing transactions, including the completion of a deal ticket or input into a computer system
- confirming, settling and reporting of transactions, including segregation of duties and documentation

Procedures will also need to cover other areas defined such as mandates and management reporting.

### 5.3.3 Limits

Limits allow authority to be given, within an acceptable risk framework, and processes to be established for escalation of decision-making power when an individual's authority is insufficient for the

action required. Examples include counterparty limits, position limits and authority limits.

- Counterparty limits – these limits are intended to protect the HA from loss in the event that a counterparty defaults. Limits should be set in order to capture both the straightforward exposure that arises with a deposit placed with a lender and the more complex types of exposure that arise as a result of hedging transactions involving derivatives (as discussed in Section B3)
- Position limits – these limits in essence address the level at which identified exposures can remain unhedged. Many HAs will leave some risks unhedged and do so for a variety of reasons, including their risk appetite and the level of certainty attached to their forecasts. Both the risk management framework and the control framework should be based on the existence of quantified position limits, so that the HA can be confident that an unacceptable level of unhedged exposure will not be permitted
- Authority limits – the use of such limits enables the HA to define what size of transaction can be undertaken by staff. Effective application of these limits will ensure that there is suitable escalation of the decision process whenever material amounts are being transacted. Such limits must be realistic and appropriate to the

numbers of staff available to undertake treasury transactions and the 'normal' size of such transactions

#### 5.3.4 Mandates

Mandates allow lenders to accept instructions from individuals within the HA and place limits on the authority of those people. Properly established mandates, therefore, have the potential to reduce materially the risk of loss from transactions that the HA did not wish to enter into. The mandates can also be used to require the lenders to perform certain duties that will contribute to the HA's own control framework. The two types of mandate in this context are for dealing and transfer:

- the dealing mandate: establishes that named individuals in the HA are authorised to arrange transactions such as investments, borrowing and hedging with the lender. Within the mandate, there may be limitations on transaction types, instruments, amount and maturity periods. The mandate should also address the HA's requirements for confirmation of deals (how the HA will confirm and how it requires the lender to confirm), standard settlement instructions and the bank accounts that can be used

- the transfer mandate: defines for the lender who within the HA has the authority to initiate debit transactions on the HA's bank accounts. The mandate will need to consider the various ways in which instructions could potentially be provided (in writing, by telephone, by fax, by electronic funds transfer etc) and the authority levels applying to transactions of various value sizes

All mandates should be accepted by the lender in writing before being put into effect. Ideally, this is arranged by the lender counter-signing a copy of the mandate and returning it to the organisation. Care should be taken in confirming that a lender is committed to acting on the full terms of a mandate. Many lenders will not accept a mandate that implies that the lender has to take over the monitoring of compliance with controls, that is more properly the task of the borrower.

Procedures must be in place to ensure that mandates are kept up-to-date. This will involve deleting names from the mandate as individuals leave the organisation or relevant responsibilities change. In no circumstances should the HA ask a lender to operate outside the terms of its mandate as such action clearly destroys the protection the mandate is intended to provide and may compromise its use in the future.

### 5.3.5 Segregation of duties

Segregation seeks to ensure that one individual is not able to undertake dealing, confirmation and settlement without the control involvement of others. The HA is at extreme risk of loss of funds, either through fraud or error, if effective segregation is not in place. The limitations of smaller HAs in the segregation of duties increases the importance of internal audit in performing an independent review of treasury operations to ensure that operational risk is effectively managed.

In order to achieve effective segregation each stage of the dealing, confirmation and settlement processes should be designed to involve different individuals. Where resources are limited, pragmatic judgements need to be made as to how best to overcome this. For instance, it may be that responsibilities for review and authorisation should be placed outside the treasury area, leaving the limited specialist resource to undertake the transactional processes. It is, however, most important that those involved in reviewing and authorising transactions must be in a position to understand and challenge what is being undertaken. The lender mandates and EFT terminal controls have an important role to play in reinforcing the

segregation of duties and thereby protecting the HA against any breach in segregation.

### 5.3.6 Reconciliations

Regular reconciliations are an important aspect of controlling treasury systems. Formal reconciliations should be performed on a regular basis to ensure that the financial records are properly controlled, all entries are being promptly made, and the dealers (or treasurer) have adequate and accurate position information prior to formally committing to a legally binding transaction. Reconciliations should be properly documented and independently reviewed. These should include:

- reconciliation of dealers' position sheets to the positions shown in the general ledger. Dealers should formally sign off their position report and review the reconciliations with their own records to ensure that they are properly recorded in the accounting system
- reconciliation of subsidiary ledgers to the general ledger, for example, where treasury operations are on a separate system
- reconciliation of clearing and all bank accounts and broker statements to ensure all outstanding items are promptly identified and cleared

### 5.3.7 Confirmations

In order to work in an effective manner, the confirmations control should be segregated from any front office dealing activities. A formal process should be put in place for sending out confirmations to counterparties and receipt and matching of incoming confirmations. The HA should require its counterparty lender to confirm to it in writing (except where electronic confirmation systems are in place) and all confirmations should be provided as soon as possible after a transaction.

It is also considered best practice to maintain a list of unconfirmed or unmatched deals, however in practice, many counterparties exclude items which relate to overnight placements once transactions have settled. Best practice also calls for records to be kept of all telephone calls made or received by the dealing members of a treasury department. This safeguards any dispute with counterparties over the terms of a transaction.

### 5.3.8 Documentation

The transactional processes within treasury require that a certain amount of documentation is produced in order to facilitate control; ideally much of it can be system-based. Whether in a manual or

IT environment, documentation is there to create an audit trail to minimise the risk of a deal being overlooked or incorrectly recorded and to show that transactions have been checked and authorised in line with policy.

The key areas of documentation associated with transactions are as follows:

- dealing diaries – are maintained to show the investment, borrowing or hedging transactions, and their associated flows, maturing each day
- ISDA master agreements and other netting agreements – are put in place for derivative counterparties in order to define the overall relationship between the counterparties. It identifies events of default and termination as well as the requirements of any covenants and collateral. It should also define the calculation agent who is responsible for resetting the applicable interest rate, calculating the interest to be exchanged, sending confirmations and netting
- deal tickets – record all the details associated with a dealing transaction, including those of lenders that bid unsuccessfully for the transaction. Deal tickets should be sequentially numbered and signed by the dealer involved. The tickets usually provide the basis for inputting

the details of each transaction into a treasury computer system

- confirmation letters – the HA should specify in writing and agree its requirement in advance. These may be produced by the HA and they act both as a record of the HA's understanding of the transaction (in case of dispute) and the medium to provide instructions for settlement

#### 5.3.9 Management reporting

Management reporting in treasury has a key role to play in the control framework by ensuring that decision-making, performance assessment and the recognition of control breaches is as timely as possible. Reporting should be risk-based (focusing on the key areas of risk for the HA), hierarchical in content and fully supported by management commentary.

The detailed content of treasury reporting will depend very much on the circumstances of the HA, but at the very least it should cover:

- a summary of the HA's cash, borrowing and risk management positions
- comparison of positions with limits
- forecast positions over an appropriate timescale
- actual and projected covenants against lender limits

- identification of key risk and other issues likely to affect the forecast
- actual performance (for instance, achieved investment and borrowing rates) and comparison of these with appropriate benchmarks or targets
- confirmation of compliance with control procedures, noting in particular any breaches of operational controls and recording actions taken

#### 5.3.10 Compliance monitoring

Effective monitoring of compliance with treasury controls is a continuing requirement in any HA and the operation of routine monitoring procedures is a key. The accounting process, including the reconciliation of confirmation letters (outgoing and incoming) and the reconciliation of bank accounts, also forms an essential part of the monitoring process. The treasury function should also be subject to internal audit review at least once a year. This should involve the detailed reconciliation of sample treasury transactions to supporting documentation, as well as validation of computer data and management reports. In addition to checking transaction details, the review should also consider whether authority levels and limits have always been applied and whether the control system is adequate given the risks and complexity of the treasury function.

The internal audit of treasury must be undertaken by individuals competent to review such a relatively specialist area. Many HAs, even those with a permanently staffed internal audit function, recognise the difficulty of achieving this and look for external support. However the relevant expertise is assembled, the internal audit review should be seen as the primary source of comfort as to the effectiveness of treasury controls. Where such an internal audit is performed using an external provider, care must be taken to ensure that there is clear independence between those performing audit work and those involved in an operational role or advisory capacity.

Achieving best practice in treasury control does not provide certainty that there will never be a major loss of funds through a failure of control. Such losses have occurred in a number of large companies, notwithstanding the existence of strong control systems, but putting in place a sound control framework – and checking that it remains effective – is a significant step in the direction of disaster prevention.

# Appendix A1

## Reporting requirements

Frequency	Recipients	Information Reported
Daily	<ul style="list-style-type: none"> <li>Those responsible for carrying out treasury transactions</li> <li>Those responsible for detailed monitoring of treasury activities</li> </ul>	Daily cash flow forecasts Maturity ladder: showing transactions maturing that day and in future Investments and funding and other operational reports: For example, payments to be made and confirmations yet to be received Exception reports: As triggered by events, such as breach of counterparty limits
Weekly/Fortnightly reporting	<ul style="list-style-type: none"> <li>Finance director</li> <li>Treasurer</li> </ul>	Short term cash forecasts Expected borrowing facility utilisation Investments maturing Details of any currency and interest risk hedging actions planned
Monthly reporting	<ul style="list-style-type: none"> <li>Board/sub committee of the board eg finance committee</li> </ul>	Treasury positions compared with limits Report of monthly activities and performance compared with objectives Exception reporting Risk based reports: showing the current position compared with limits and the sensitivity of positions

## Appendix A2

# Suggested questions for housing association boards

- 1 Is there sufficient expertise/knowledge within the board to understand and challenge treasury management proposals?
- 2 Are treasury management personnel appropriately qualified and trained by a professional body such as the Association of Corporate Treasurers?
- 3 If officers are recommending the use of derivative instruments to manage interest rate risk, has the board received proper advice, to ensure it understands the proposal and its impact on the business, both in the short and long term? How will officers ensure that the association achieves value for money and that the instruments are not overpriced?
- 4 What is the level of independent oversight over the treasury function?
- 5 What is the association's risk strategy and appetite and how is this defined?
- 6 Is there a documented and approved treasury policy?
- 7 Are all appropriate treasury risks included within the association's overall risk policy framework?
- 8 Is there appropriate segregation of duties and appropriate delegation with regard to treasury duties?
- 9 How are banking and funding relationships managed and monitored?
- 10 Is adequate reporting produced, as set out in Appendix A1?
- 11 What is the policy with regard to free standing and embedded derivatives?
- 12 To what extent is independent advice obtained/required in the process of obtaining new facilities?
- 13 How often is the treasury function reviewed by internal audit?
- 14 Is the internal audit performed by individuals with appropriate skills and experience?
- 15 Is the coverage and independence of internal audit review appropriate?

# Appendix B1

## Common investment and funding products

Product	Description
<b>Investments</b>	
Money market deposits	Deposits with banks for a fixed period of time at a fixed rate of interest. Commonly dealt periods are overnight, seven days, one month and multiples of one month up to a year. Deposits for 'broken-dated' periods other than these may attract slightly lower rates of interest. Cash will not be available until the deposit reaches its maturity dates and the credit risk will depend on the counterparty
Certificates of deposit (CD)	These are similar to money market deposits but the investor purchases a certificate of deposit issued by the borrower, usually a bank or building society. The advantage is that the CD can be sold by the investor before its maturity date, thereby releasing cash. The greater flexibility is available in return for a slightly lower rate of interest than an equivalent bank deposit. The rate of return on a CD will be fixed but if it is sold before the maturity the price could vary according to the market's view of the creditworthiness of the issuer and the future 'marketability' of the paper
Gilts	As with CDs, these are negotiable instruments which can be sold before maturity to release cash. The credit of gilts issued by the UK government is high, offering security but for which the investor must forego some return
Commercial bonds	These are similar to a certificate of deposit but issued by a major corporate. Depending on the issuer, increased rates of interest can be achieved but at a cost of potentially lower credit quality and liquidity
Bonds	A certificate evidencing indebtedness — a legal contract sold by an issuer promising to pay the holder its face value plus amounts of interest at future dates

Product	Description
<b>Funding</b>	
Bank overdrafts	Allow the borrower to draw down and repay within an agreed facility limit. Interest rates are variable in line with the lender's base rate, adjusted by a margin that reflects the credit standing of the borrower. An overdraft is usually used to fund changing levels of working capital. Some HAs use an overdraft facility as a liquidity management tool, but they need to bear in mind that a key feature of overdraft funding is that it is repayable on demand (ie at any time). It is not an appropriate method of meeting core funding needs because it does not commit the bank to lend and is more expensive than other forms of borrowing. Because of this HAs which actively use their overdraft will need to monitor both the bank's own credit rating (to assess drawdown or repayment issues as a result of credit deterioration of the bank) as well as any change in the bank's view of the HA
Money market facilities	May form part of an overall facility or be made available to HAs with higher credit status without the need for specific loan agreements. Borrowings within the facility are arranged with the lender's treasury department for a fixed period, up to 12 months but sometimes longer, and at a fixed rate to maturity. Rates are based on the latest interbank rates for the period in question

Product	Description
<b>Funding</b>	
Term loans	Banks and Building Societies provide the HA sector with such loans to meet medium and long term core funding requirements from three years to 30 years or more, with flexible drawdown and sometimes revolving credit elements to assist in cash flow management. Medium term loans are often 'bullets' (ie all principal is repayable at maturity) whereas longer term facilities typically amortise to maturity, sometimes after an interest only period. The availability of very long term corporate loans from the banking sector is not typical of its commercial finance terms in other corporate sectors and may vary with banks' risk appetite from time to time.
Commercial paper (CP)	Mechanism for companies to raise short term finance by the issue of promissory notes which are similar to the certificates of deposit issued by banks and building societies. Commercial paper is negotiable, with typical maturities of 90 days or less; there are active markets in sterling and US dollars, and a growing interest in the euro. To use commercial paper most effectively an issuer must expect to be raising significant amounts of funds regularly in this way and it would usually do so through a programme administered by a financial institution. This form of financing has not been used widely.
Bonds	Bonds differ from commercial paper in providing medium to longer term finance, with typical maturities from one to 30 years. These are much more common among HAs than CP, and there is a very broad range of types of bonds in issue. Differentiating features include maturity, interest rate (fixed or floating), method of payment of interest (for example, interest on a 'zero-coupon' bond is not settled until final maturity) and whether an issue is placed directly with investors or through a public offering. The arrangement of bond issues is a highly specialised operation which will need to involve the use of expert advisors on both the initial launch and the issue's subsequent administration. Bonds may be either issued to the market directly or issued to private investors.

Product	Description
<b>Funding</b>	
Bond Securitisations	<p data-bbox="371 891 1474 1597">True bond securitisations are still relatively uncommon in the HA sector. Securitisations are a means by which providers of finance fund a specific block of assets rather than the general business of an organisation. It is a technique which results in transferring selected assets, together with their future income streams, to a Special Purpose Vehicle (the issuer) which is able to obtain better terms than the HA (originator) for the associated funding. The issuer is usually thinly capitalised and its shares placed with a party other than the originator - charitable trusts have often been used for this purpose - with the result that the issuer is not classified as a subsidiary of the originator. The assets transferred to the SPV generate cashflows that are used to provide the return to investors who buy the assets. In order for the risk to be acceptable to investors, the uncertainty of the cash flows re-routed to investors has to be controlled through the provision of appropriate security, which can be either an increase in the assets sold or, in a cash flow securitisation, by improving the certainty of the cash flows themselves. This enhancement may take the form of third party insurance, a third party guarantee of the issuer's obligations or an issue of subordinated debt (perhaps to the originator); all aimed at providing a cushion against losses up to a fixed amount.</p> <p data-bbox="371 1653 1474 2047">The originator is granted rights to surplus income (and, where relevant, capital profits) from the assets - ie to cash remaining after payments of amounts due on the loan notes and other expenses of the issuer. The mechanisms used to achieve this include: servicing or other fees; deferred sale consideration; 'super interest' on amounts owed to the originator (eg subordinated debt); dividend payments; and swap payments. From the originator's standpoint, the effect of the arrangement is usually that it continues to obtain the benefit of surplus income (and, where relevant, capital profits) from the securitised assets and bears losses up to a set amount. Usually, however, the originator is protected from losses beyond a limited amount and has transferred catastrophe risk to the issuer.</p>

# Appendix B2

## Money market and bond fund ratings

Money Market and Bond Fund Ratings are opinions of the investment quality of shares in mutual funds and similar investment vehicles which principally invest in short-term and long term fixed income obligations, respectively. As such, these ratings incorporate an assessment of a fund's published investment objectives and policies, the creditworthiness of the assets held by the fund, as well as the management characteristics of the fund. The ratings are not intended to consider the prospective performance of a fund with respect to appreciation, volatility of net asset value, or yield.

While the rating data provided by the agencies may form the platform for determining credit policy, this is usually supplemented by information passed on by lenders and advisers and in the public domain. This is especially necessary to the extent that rating agencies place reliance on published accounts which become out of date, although the agencies do keep a constant watch and may alter the status of ratings accordingly.

It must always be remembered that the relevant counterparty may not be the party with which a transaction is carried out. For example, a broker is only an intermediary, not the taker of a deposit. When certificates of deposit or commercial paper are purchased, once settlement has taken place

the risk lies with the original issuer, which is not necessarily the seller.

The table overleaf sets out the ratings used by Moody's and Standard and Poors and the description relevant to individual ratings.

HAs must determine their own risk appetite, however, any investment in financial instruments would be expected to have a rating of at least A+ and for the credit rating of counterparties to be monitored.

Moody's	Standard and Poor's	Description
Aaa	AAA	<p>Money Market Funds and Bond Funds rated Aaa are judged to be of an investment quality similar to Aaa-rated fixed income obligations, that is, they are judged to be of the best quality.</p> <p>Typical example of a AAA is a British government bond.</p>
Aa	AA	<p>Money Market Funds and Bond Funds rated Aa are judged to be of an investment quality similar to Aa-rated fixed income obligations, that is, they are judged to be of high quality by all standards.</p> <p>Commercial bank bonds would typically be AA rated.</p>
A	A	<p>Money Market Funds and Bond Funds rated Aa are judged to be of an investment quality similar to A-rated fixed income obligations, that is, they are judged to possess many favourable investment attributes.</p>
<b>Upper-medium-grade investment vehicles</b>		
Baa	BBB	<p>Money Market Funds and Bond Funds rted Aaa are judged to be of an investment quality similar to Baa-rated fixed income obligations, that is, they are considered as medium grade investment vehicles.</p>
Ba	BB	<p>Money Market Funds and Bond Funds rated Ba are judged to be of an investment quality similar to Ba-rated fixed income obligations, that is, they are judged to have speculative elements.</p>
B	B	<p>Money Market Funds and Bond Funds rated B are judged to be of an investment quality similar to B-rated fixed income obligations, that is, they generally lack characteristics of desirable investment.</p>

# Appendix B3

## Market risk rating definitions

Moody's issues: Mutual Fund Market Risk (MR) ratings which are opinions of the relative degree of volatility of a rated fund's net asset value (NAV). In forming an opinion on the fund's future price volatility, Moody's analysts consider risk elements that may have an effect on a fund's net asset value, such as interest rate risk, prepayment and extension risk, liquidity and concentration risks, currency risk, and derivatives risk. The ratings are not intended to reflect the prospective performance of a fund with respect to price appreciation or yield.

MR1 Money Market Funds and Bond Funds rated MR1 are judged to have very low sensitivity to changing interest rates and other market conditions.

MR2 Money Market Funds and Bond Funds rated MR2 are judged to have low sensitivity to changing interest rates and other market conditions.

MR3 Money Market Funds and Bond Funds rated MR3 are judged to have moderate sensitivity to changing interest rates and other market conditions.

MR4 Money Market Funds and Bond Funds rated MR4 are judged to have high sensitivity to changing interest rates and other market conditions.

MR5 Money Market Funds and Bond Funds rated MR5 are judged to have very high sensitivity to changing interest rates and other market conditions.

Note: A + modifier appended to the MR1 rating category denotes constant net asset value (NAV) money market funds and other qualifying funds.

These descriptions are for illustration only, and for the exact meaning of each level of rating it is essential to obtain the latest information from the organisations concerned.

# Appendix B4

## Bank relationships

### The choice of banks

Banking relationships are dynamic; the scope and geographic spread of services which banks are able to offer is constantly evolving. This process has been accelerated by the restructuring of the banking sector in Europe (and indeed world-wide) in response to external pressures such as the introduction of the euro and changes in the financial markets' regulatory framework. At the same time, the banking requirements of HAs themselves develop as their businesses evolve. At some time or another, it may therefore become appropriate for the treasurer to change or extend its banking relationships.

In order to select banks with which the HA should operate (or to reconfirm that the banks currently used correspond to its needs) the treasurer should undertake the following steps:

- identify the services required from the banks, preferably under the two broad headings of funds transmission, funding and liquidity; and risk management. A detailed list of services should be prepared
- identify which type of bank and geographical location is most appropriate

- confirm that the creditworthiness of the preferred banks meets the HA's minimum standards for counterparty risk. As discussed in Section B4, these standards will normally be based on established credit ratings provided by third parties

### Opening the relationship

The formalities involved in opening a relationship with a new bank will vary depending on the type of business the HA wishes to transact. To open a current account, for instance, the bank is likely to require some audited financial history and a copy of the rules of the organisation /Memorandum and Articles of Association as well as a board resolution authorising the opening of the account. The bank will also require the HA to complete a mandate; the bank will initially propose a standard mandate form, which the HA will need to review carefully in order to ensure that it is signed on a basis consistent with the way the HA wishes to operate the account.

The other operational arrangements may involve borrowing facilities, cash investment and dealing in hedging instruments. In each case, the treasurer should review the documentation proposed and ensure that all aspects are legally and commercially

acceptable to the HA. All transactional processes should be subject to appropriate mandates (for example, transfer and dealing mandates which are described in Section B5).

## **Managing the relationship**

It is normal to find that bank relationships are conducted at various levels within the HA. The finance director and other members of the senior management team will deal with the bank at a strategic level and, in the case of the finance director, also at a practical, operational level. If there is a treasurer in the HA it is likely that they will have regular and close contact with an account executive within the bank. More junior levels within the finance and accounting areas will have operational contacts with the bank's staff and these will in turn play a key role in ensuring that business is conducted efficiently and safely.

At all levels the HA should be seeking open communication and sharing of information between the two sides. Despite the considerable changes that have occurred in the UK banking sector over the past decade, trust continues to play a vital role in ensuring that the bank and the HA work successfully together. The strongest foundation

for trust is the exchange of information wherever possible.

The treasurer should expect the HA's banks to provide clear account management responsibility. The individuals involved in the banks should be qualified to deal with the HA in terms of their knowledge of the industry and the products transacted. Based on this knowledge the banking officer should be in a position to provide relevant information to the HA in response to its requests, in terms both of the business environment of the HA sector and of opportunities to take advantage of financial market developments.

## **Assessing the bank's service**

A key part of the flow of information referred to above will deal with the quality of the bank's service. A clearing bank providing domestic services to an organisation is just as much a supplier as are those providing maintenance services, office supplies and so forth. As a supplier, the bank should be made aware of the HA's expectations on service levels and should receive timely feedback on performance relative to these, especially if there is any under-performance.

The logical extension of performance assessment is for the HA periodically to consider putting its banking business out to tender. However, should the banks available to the sector reduce further this may not always be possible. So far as clearing banking in the UK is concerned, a tender will bring a number of benefits, including:

- confirmation of the reasonableness of the pricing currently being charged to the HA or, on the contrary, evidence that the cost of banking could be reduced
- establishment of a clear basis on which services are to be provided and performance subsequently measured
- opportunities to take advantage of services, introduced by other banks, which had not previously been available to the HA

The process of running a tender for banking services, from the definition of requirements through the preparation of an invitation and the final evaluation, needs to be handled on a professional basis in order to ensure success. The overall process should be properly project-managed.

Given this and the reduced number of market counterparties, HAs are not advised to put their banking out to tender too frequently. Even with

good project management the overall exercise is time-consuming and inevitably causes disruption to existing relationships. However, real benefits can be achieved from tendering, and HAs should consider this to be part of their longer term treasury management process.

The negotiation and agreement of charges for banking services should be seen just like any other commercial transaction, with the treasurer allocating time to this commensurate with the relative importance of the charges in the controllable cost base. For the bank's part, it will be seeking to recover a sufficient overall level of income to compensate it for the work involved in providing all the services required by the HA. The bank's own commercial considerations may encourage it to be more or less aggressive in its negotiation, depending on its own objectives in terms of working with a particular HA.

It is also important to recognise that banks will look at the total value of a client relationship when arriving at a suitable charging structure. This may involve a mix of different methods of charging to suit the bank's overall relationship objectives.

# Appendix B5

## Control failure examples

At the policy level, examples of control failures would include:

- exposures may not be identified: if policies do not specify which events give rise to exposures and how these are to be measured (in any of the areas of treasury risk), or if procedures fail to ensure that relevant data is correctly passed through the organisation, substantial exposures may be left unhedged
- exposure may not be managed: if appropriate action is not taken in response to identified exposures (for example, due to the treasurer waiting until rates 'improve' before putting a hedge in place), the HA's overall treasury risk management approach may be compromised

At the treasury operational level, examples of control failures would include:

- limit systems and risk reporting procedures fail to monitor and control all exposures adequately
- treasury dealers breach board guidelines and expose the entity to unacceptable risks
- treasury exposures and transactions are not completely and accurately captured by the reporting systems, resulting in "hidden" exposures. The entity can be committed to

sizeable transactions over the telephone with no immediate cash flow impact

- unauthorised payments are made, either in error or through deliberate act
- deals are contracted at off-market rates, (other than controlled OTC contracts) either due to error or through fraudulent trading
- disputes arise with counterparties over the existence, nature or terms of contracts
- the accounting treatment of transactions is inconsistent with generally accepted accounting principles and the underlying substance of the transaction
- unauthorised deals are made to speculate and establish positions that are unrelated to the underlying exposures. Such deals might involve instruments that are not fully understood, are inappropriate to the company's requirements or are unattractive in tax and accounting terms
- dealing by unauthorised individuals: if the bank mandates are not up-to-date, or simply fail to specify who is authorised to deal, any employee (or ex-employee) might arrange deals in the company's name
- when funds are placed on deposit, borrowings repaid or other treasury transactions settled there will be opportunities to defraud the company by misappropriation. The frequent high

value of such transactions makes the occurrence of one single fraud a potentially material event

- cash or borrowing positions are inaccurately recorded, or inadequately checked, incorrect payment instructions may be given and result in a loss of interest or misdirection of funds
- unauthorised access to treasury management systems or electronic funds transfer systems (EFT systems) may lead to loss of funds if payment details are changed or transaction records are deleted. Reliance on systems within treasury creates a need for particularly strong access controls

# Appendix B6

## Exposure monitoring methods

### Value at risk

A technique that has gained much attention through its use by banking regulators to measure the capital adequacy of banks, value at risk (VaR). In essence, VaR is a measure of the worst case expected loss which might be suffered on a given portfolio of financial instruments over a given time interval under normal market conditions at a given confidence level. It assesses this risk by using statistical and simulation models designed to capture the volatility of assets or liabilities in a portfolio. VaR can also be applied to other financial risks, such as credit exposure, and has the advantage of being able to give a composite measure of different types of risk. There are, however, many assumptions which must be made in applying this technique, which can each have a significant effect on the end result. This problem, when taken together with the inherent weakness of trying to use the past as a predictor of the future and the fact that VaR was designed for financial institutions, makes it difficult to apply in the management of HAs' treasury risks.

### Gap analysis

A technique similar to that outlined above, which has historically been used by financial institutions and in particular building societies, is interest rate gap analysis. This also analyses the position by time periods. The principal amounts of all borrowing (liabilities) and interest bearing investments (assets) are allocated to time periods according to their next interest reset date (whether the reset will result from setting the rate on a variable rate loan or from the final maturity of a loan.) The net borrowing or lending in each time period is the 'gap' or exposure in that time period. Limits can be set on the maximum acceptable gap in each period and appropriate action taken to reduce the gap by hedging.

# Glossary of terms

This glossary includes a number of terms which are referred to within the good practice guide, but also includes other terms which may be of use to those involved in treasury management.

## **At the money**

An expression originating in the options markets to describe an option exercisable at the current market price of the underlying security or interest rate (eg an option to buy or sell a company's shares exercisable at their current value). Its use has spread through derivative markets where it generally references the current price/interest rate of the instrument underlying a derivative.

## **Asset cover**

The ratio of debt to the value of the asset(s) pledged as security for that debt typically specified in loan documentation.

## **BACS**

Bankers Automated Clearing Services (BACS) is the UK's low-value clearing system.

## **Basis price**

The price agreed in an option contract is the 'basis' or 'strike' price. The buyer of the option pays a premium in return for receiving the option to buy (see Call) or sell (see Put) the underlying instrument

at the basis or strike price on dates or for a period in the future.

## **Bond**

A certificate evidencing indebtedness - a legal contract sold by an issuer promising to pay the holder its face value plus amounts of interest at future dates.

## **CHAPS**

The Clearing House Automated Payment System (CHAPS) is the UK interbank RTGS (real time gross settlement) system providing same day settlement for (typically) low-volume, high-value transactions. As a result of its migration to a new platform, it is also called New CHAPS.

## **Convertible bond**

A bond which gives to its owner the privilege of exchanging it for other securities of the issuing corporation on a preferred basis at some future date or under certain conditions.

## **Call option**

The right to buy or otherwise acquire a security at a certain time. For example, some bonds are issued with embedded options entitling the issuer to call the obligation prior to its stated maturity: in effect to redeem early at a stated price and date.

### **Capped rate funding**

Funding whereby the underlying interest rate increases in line with underlying interest rate movements, any movement capped at a predetermined interest rate level.

### **Cash pooling**

Cash management technique aimed at improving liquidity management by pooling an organisation's account balances either under the form of a cash concentration or a notional pooling arrangement.

### **Clearing house**

An association of banks in a city or country created to facilitate the clearing of cheques, drafts, notes, and other items among its members. It also formulates policies and rules for the mutual welfare of all members, and in times of financial stress, may aid those members who might require help in the process of clearing cheques, etc. The settlement of debtor or creditor balances usually must be made daily.

### **Collateral**

Stock, bonds, evidences of deposit, and other marketable properties which a borrower pledges as security for a loan.

### **Cost of capital**

For the HA this is effectively its borrowing cost and, where appropriate, the return sought on the investment of surplus. A private company would include both debt and equity costs.

### **Coupon**

For historical reasons the name given to interest payments on a bond or similar security.

### **Covenant**

Agreement by a borrower incorporated in the documents of a new issue and legally binding upon the issuer over the life of the issue, unless otherwise stated, to perform certain acts or to refrain from certain acts.

### **Counterparty risk**

Counterparty risk is the risk that a counterparty may fail, resulting in financial loss to the transacting party.

### **Credit risk**

The degree of risk assumed for possible non-payment of credit extended.

### **Dealing limit**

The maximum amount of all unmatured trading contracts that can be outstanding for a given counterparty.

### **Debenture**

A bond for which there is no specific security set aside or allocated for its repayment.

### **Demand deposit**

Deposits that are payable on demand at any time the depositor elects. They require no notice of withdrawal.

### **Deposit limit**

The maximum amount and the maximum term of all deposits that can be outstanding with a given counterparty.

### **Derivative**

A financial instrument that derives its cash flows, and therefore its value, by reference to an underlying instrument, index or reference rate.

### **Drawdown**

Payment to the borrower of all or part of a bank's loan commitment.

### **Drawee**

The person to whom a bill is addressed (usually the buyer).

### **Drawer**

The person who fills out (draws) the bill (usually the seller).

### **Duration**

A measure of the sensitivity of a security's market value that is defined by the average time until receipt of the cash flows weighted by the present value of those cash flows.

### **Effective yield**

The actual return earned by an investor consisting of all cash received from the investment, including coupon return, interest earned on re-invested interest or principal payments and any capital gain or loss from disposing of the investment in comparison to the initial acquisition price.

### **Electronic funds transfer (EFT)**

The exchange of money via telecommunications, without physical currency actually changing hands. EFT refers to any financial transaction that transfers a sum of money from one account to another electronically.

### **Embedded derivative**

An embedded derivative is a derivative that is embedded in another contract — the host contract.

### **Fixed rate loan**

A loan in which the interest rate does not change during the entire term of the loan.

### **Floating rate**

Indebtedness for which the interest payable is periodically adjusted.

### **Floating rate notes**

Bonds without a fixed rate of interest, the coupon rate periodically determined according to a predetermined formula typically tied to a short-term interest rate in an appropriate market.

### **Forward position**

An enterprise's future net holding as constituted by all transactions already entered into, excluding the spot position.

### **Futures contract**

A forward contract to buy, sell or pay a specific amount that is standardised and exchange traded.

### **Gearing**

For the HA this is typically expressed as the ratio of its debt to the net cost of its property assets. For LSVTs the revaluation reserve is included.

### **Hedging**

Engaging in transactions to reduce or eliminate exposure to changes in market conditions (eg interest rate and/or income or price changes) under forward commitments.

### **Increased cost clause**

A clause in Bank and Building Society loan agreements which allows the lender to require compensation for increased regulatory costs or any reduction in its return on capital arising from funding or maintaining the loan commitment. Such costs might arise if, for example, the bank is required to hold more capital in future against its regulated assets and would lead to an increase in the loan margin. See also Market Disruption Clause and Tax Indemnity Clause.

### **Interest cover**

For HA its regulator employs the ratio of interest paid to Earnings before interest paid, taxation, depreciation and amortisation (EBITDA).

### **Interest margin/spread**

A measure of investment profitability often calculated as the difference between income on deposits or investments and the applicable cost of funds (eg LIBOR plus lenders margin etc) expressed as a percent of the capital invested.

### **Interest rate contract**

A transaction which involves a future commitment to pay or right to receive certain cash flows calculated on the basis of interest rates on an underlying notional principal amount. Examples include, interest rate swaps, forward rate agreements and interest rate options (including caps, floors, collars and swaptions or other derivatives).

### **Interest rate risk**

The risk of increased interest expense (or reduced interest income) as a result of change in market interest rates.

### **In the money**

An option or derivative contract whose present value for one of the parties is positive compared to current market prices at any relevant time is in the money for that party.

### **LIBOR**

London Inter Bank Offer Rate. The interest rate which banks in London charge on interbank deposits for set periods of time (eg three month LIBOR).

### **Line or line of credit**

An arrangement whereby a bank will lend or trade for funds up to an internally approved maximum amount.

### **Liquidity**

Available cash or the capacity to obtain it on demand.

### **Loan**

A business transaction between two legal entities whereby one party, known as the lender, agrees to give the use of funds to the second party, known as the borrower, with or without a fee. Such a fee, if charged, is called interest or discount. Banks are the principal lenders of funds for commercial purposes.

### **Margin**

For secured loans the difference between the market value of collateral pledged to secure a loan and the face value of the loan itself. Margin requirements, set by each bank, specify the ratio of collateral to loan value that must be maintained by

the borrower to keep adequate security pledged to the bank for the life of the loan. See also Interest margin/spread and Asset cover.

### **Mark-to-market**

The adjustment of a position to its market value.

### **Market disruption clause**

A clause in Bank and Building Society loan agreements which allows the bank to charge an alternative rate to LIBOR if LIBOR is not quoted in the market at any time and in some versions even if LIBOR is quoted but the lender asserts it cannot obtain funding on a LIBOR basis.

### **Matching**

Entering into an equal and opposite transaction which may differ from the original transaction only as to price (for example, the interest rate). The effect of matching, which is also referred to as covering, is to determine the profit or loss attributable to the two deals.

### **Maturity**

The date on which a note, time draft, bill of exchange, or other negotiable instrument becomes due and payable.

### **Notional**

The value of the principal amount advanced.

### **Option**

A contract giving the holder the right (but not the obligation) to either buy from or sell to the issuer of the contract a fixed quantity (of, for example, securities) at a fixed price within or at the end of a specified time period.

### **Option premium**

The total price paid by for the option.

### **Overdraft**

The debit balance in a demand deposit or current/ checking account resulting when a cheque drawn against the account exceeds the amount available and is paid.

### **Out of the money**

An option or derivative contract whose present value for one of the parties is negative compared to current market prices at any relevant time, is out of the money for that party. Each out of the money position corresponds to an in the money position for the counterparty.

### **Principal**

The face value or par value of an instrument which becomes the obligation of the issuer to pay to a holder in due course. Interest may be charged on this principal. In some instances, however, the obligation is for the principal only. This is termed 'non-interest bearing' principal.

### **Retail price index (RPI)**

A monthly indication of the average price changes to a particular 'basket' of consumer goods. Used as a general indicator of price inflation.

### **Revolving loan**

A loan that can be redrawn or repaid at each interest rate rollover (see below) and if repaid can be redrawn subsequently by the borrower.

### **Rollover**

The period, usually three or six months, for which the interest rate on an adjustable-rate loan is set.

### **Securities**

A variety of financial instruments evidencing and promising the fulfilment of certain obligations.

### **Settlement**

The actual delivery and receipt of the media of exchange under a contract.

### **Spot position**

The position at the present time encompassing present assets, liabilities, and commitments due within two working days.

### **Subordinated**

Debt obligations not in the first (senior) tier of obligations. In the event of default, subordinated debt holders are paid after all senior obligations have been discharged.

### **Swap**

An exchange of streams of payments over time according to specified terms. The most common type is an interest rate swap, in which one party agrees to pay a fixed interest rate in return for receiving an adjustable rate from another party.

### **Swaption**

An option giving the holder the right, but not the obligation, to enter into or cancel a swap agreement at a future date.

### **SWIFT**

An acronym for the Society for World-Wide Interbank Financial Telecommunications, a system which provides electronic payment of funds between banks in different countries (principally in Europe, Canada, the US and Australia).

### **Syndicate**

A group of bankers and/or bond houses which act together in underwriting and distributing a new securities issue.

### **Syndicated loan**

A loan granted to a borrower by an organised group (syndicate) of banks.

### **Tax indemnity clause**

A clause in Bank and Building Society loan agreements which requires a borrower to “gross up” its payments in the event a withholding tax is introduced on interest payments. In effect, the borrower must increase its payments by an amount sufficient to ensure that the lender receives the same net amount it would have received without the imposition of the tax. The borrower must then pay the withheld tax to the tax authority and await the lender reclaiming and refunding the tax payment if possible.

### **Volatility**

The degree of price fluctuation for a given asset, rate or index. Usually expressed as a standard deviation.

### **Working capital**

Working capital measures the liquidity of a company's assets and equates to current assets less current liabilities.

### **Yield**

The return received from one's investment in a specific security or a specific piece of property over and above the repayment of the funds invested. Yield is most commonly expressed in terms which designate an annual rate of return on the investment.

### **Zero balancing**

Transference of all account balances into a nominated master account.

## Our offices

Maple House  
149 Tottenham Court Road  
London W1T 7BN

Fourth Floor  
One Piccadilly Gardens  
Manchester M1 1RG

For enquiries, contact us at:  
Tel: 0845 230 7000  
Fax: 0113 233 7101  
Email: [enquiries@tsa.gsx.gov.uk](mailto:enquiries@tsa.gsx.gov.uk)

[www.tenantservicesauthority.org](http://www.tenantservicesauthority.org)

For further information about this publication please call 0845 230 7000 or e-mail [enquiries@tsa.gsx.gov.uk](mailto:enquiries@tsa.gsx.gov.uk)

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# Treasury management for housing associations

Treasury management is concerned with the management of treasury risk. It can be used to predict, manage and alter the cash flows of treasury transactions in a way that better matches cash flows from trading activities.

This guide is an updated version of a document produced by the Housing Corporation. It has been revised in light of recent developments in financial markets. It is presented in two sections to provide users with both a high level perspective on treasury operations and management and a more detailed consideration of treasury operations and controls.