

**Case Study:**

**Sovereign Debt Management,  
Cash Management,  
&  
Domestic Market Development**

**Malawi**

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## Introduction

In post-HIPIC countries improved debt management capacity is one ingredient of a policy framework to ensure that in future debt remains sustainable. This case study has been developed to provide policy makers and officials with a tool to assist them improve their understanding of the issues involved in sovereign debt and cash management and domestic debt market development. The case study format permits a focus on practical issues in a real-life context. Studying the situation of other countries may cast light on issues relevant to policy makers and officials in their own countries. The case study covers debt management, cash management and developing the domestic debt market in order to allow policy makers and officials to better understand the inter-relationships between these areas and the need for coordination of the Government's activity. Due to the short maturities issued by Malawi, a situation common to many countries in the region, the discussion of debt market development is more accurately termed money market development<sup>1</sup>.

While the case study tries to be comprehensive in its approach, the discussion is broken into separate modules to allow readers to more easily identify particular issues that are of most interest to them. The discussion of debt management is built around the structure of a debt management operation – the Front, Middle and Back Offices. The responsibilities of each of these units are discussed and, for each responsibility, the discussion follows the format: what is sound practice?; what is the current situation?; how relevant is sound practice to Malawi?; what are the gaps between sound practice and the current situation?; action plan. This same format is followed in the discussions of developing cash management and developing the domestic debt market.

In the last decade governments have paid closer attention to their debt financing strategies than previously: improved information and systems to ensure timely payment of debt; improved information to understand the present and future costs and risks of the sovereign debt structure; developing capacity to interact with the market to get the best terms; developing methods to determine the mix of debt types best suited to the government's needs and risk tolerance; and ensuring that the government has access to a number of different sources of funding in order to reduce the risk of relying on a narrow funding base and to provide the ability to structure its debt in an optimal manner.

Governments' increased interest in more active and professional debt management parallels the development of more liquid and sophisticated capital markets which provide greater opportunity for active management of costs and risks and which also impose greater opportunity costs and penalties on those who fail to manage costs and risks.

The increased interest in improving the cost/risk trade-off in their debt financing has led governments to create Debt Offices as professional entities charged with this task.

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<sup>1</sup> For a discussion of developing markets for both long and short term debt refer to 'Handbook on Debt Market Development', World Bank 2001.

Improved debt management is relevant to all countries, not just those with sophisticated capital markets. Whether it is dealing with markets or with the donor community every government can benefit from having an effective 'front office' function to assist it identify a wider range of funding sources, improve investor relations and structure and negotiate loan terms more effectively. Every government will also benefit from an efficient 'back office' function that ensures it pays the correct amount on time, no more and no less, and that provides an information base with which to analyze its risks and costs. Likewise, every government will benefit from understanding its optimal debt structure (e.g. currency mix, maturity structure) and how to achieve it based on the work of the 'middle office'.

Managing the government's cash flows is an important part of debt management. Good cash management minimizes costly idle cash balances and allows better planning of debt issues. It is particularly important in those countries which for various reasons cannot issue long term domestic debt and in consequence borrow domestically at short term money market maturities. The quality of the government's cash management has a significant impact on the behavior and development of the money market.

One of the greatest constraints governments in developing countries face in trying to improve the cost/risk position of their debt is the under-developed state of the domestic debt market. While all governments benefit from good debt management those that benefit most are those with the widest variety of financing options available to them. Lack of a developed domestic debt market is a severe constraint on the government's financing options and forces the government to adopt a sub-optimal debt structure. Typically this sub-optimal structure contains over-exposures to foreign debt and to short-term domestic debt.

## General Summary of Main Action Points

Action Point	Areas of Impact
Review Finance and Audit Act	Ensure delegation, accountability and transparency of Debt Management
Recruit and train staff to operationalize the front office of the Debt and Aide Management Department.  Train staff in debt negotiating skills.	Front office functioning is hindered by shortage of trained staff.  Better negotiating skills would enable Malawi to communicate its needs better to multilateral and bilateral agencies.
Develop middle office capacity: * Recruit and train staff * Activate Debt Operations Committee and Debt Coordinating Committee.	Lack of a debt strategy is hindering: (a) Front office (i) development of a borrowing program and (ii) ability to communicate Malawi's needs and priorities to market, multilaterals and bilaterals. (b) Sovereign risk management: * Projection of debt service cash flows. * Debt profile review and sustainability analysis. * Development of benchmarks.
Integrate debt recording , domestic and foreign, on one system. Install shared network link between MoF and RBM.	Reduce errors and omissions.  Provide accurate and timely data on which to develop and monitor debt strategy.
Recruit and train back office staff.  Operationalize domestic debt section	Reduce backlog of disbursements and provide cover in the event of staff turnover. Permit integration of back office at MoF
Amend authority of Executive Ministers on expenditure.	Enhance cash management controls by ensuring that expenditure only occurs once expenditure is already approved and funds are allocated.
Establish system of monthly reporting to President and Cabinet of all department year-to-date expenditure compared to allocation.	Enhance budgetary control and cash management.
Initiate a project to develop cash management: * Obtain high level support. * Recruit staff for central cash management unit. * Analyze historical cash flow data. * Improve knowledge and monitoring of conditionalities to improve forecast of donor cash flows. * Establish reporting standards for banks handling government department balances.	Improve ability to forecast government cash flow to allow improved accuracy in determining size and timing of domestic borrowing needs. Assist RBM liquidity management and domestic debt market development.
Improve coordination between MoF and RBM in the area of cash forecasting and liquidity management. * Develop a formal process for agreeing the quantity of tbills offered. * Improve quality of cash forecast information supplied by MoF.	Assist domestic debt market development and improve clarity of monetary policy signals. Greatly reduce possibility of a repetition of the volatile tbill rates that occurred in April/May 2000.
Reduce macro risk by reducing inflation and improving the coordination of monetary and fiscal policies.	Lower domestic interest rates and lengthening the maturity of domestic debt.

## **Debt Management: Overview**

### **Objectives and Analytical Framework**

Best practice is to develop a debt financing strategy based on clear objectives for managing the debt and on an analytical framework which integrates the debt management policies with Malawi's overall strategy for macro-economic policy.

Countries which have such a debt strategy generally state their objectives in terms of meeting the country's priority financing needs at minimum cost, subject to an acceptable level of risk. To evaluate this risk, they use an analytical framework which looks not only at the impact of debt servicing on balance of payments sustainability, but also at its impact on fiscal sustainability. This type of framework is known as an asset/liability management (ALM) framework, as the risks of the debt portfolio are measured against the government's revenue streams, which are its principal assets. An ALM framework also allows the integration of debt management with the strategies for managing the country's foreign exchange reserves, by matching a portion of the debt against the currency and interest rate characteristics of these reserves, and possibly other major assets. It also is an appropriate framework for managing the risks to the budget of contingent liabilities.

Given Malawi's vulnerability to external shocks and weak revenue base, an ALM framework would be appropriate for establishing a clear strategy for managing its debt portfolio.

### **Analysis in an ALM Framework**

Malawi has already made a start at this type of approach. Under the HIPC Initiative, Malawi has done a portfolio review and debt sustainability analysis. This requires: (i) projections of the macro-variables and financing requirements using a macro-programming model to ensure that the financing requirements are consistent with Malawi's overall macro-policy objectives; (ii) an evaluation of the financing requirements under different macro-risk scenarios; and (iii) these macro-projections and financing needs are fed into a debt model to project various ratios which relate debt and debt servicing costs to the key macro-policy indicators: e.g., balance of payments indicators such as debt to exports and fiscal sustainability indicators such as debt to domestic revenues. This analysis needs to become a standard exercise performed at least annually as part of the budget process.

Best practice requires extending this analysis to include an evaluation of the risks of various financing alternatives in terms of their impact on the government's balance sheet. That is, Malawi should project the debt servicing costs under different assumptions for future interest and exchange rates and feed this back into the macro-programming exercise to evaluate the impact of these risks on debt servicing costs and the government's budget and other macro-policies. This allows extending the sustainability



analysis from the use of simple ratios to a more fundamental evaluation of the risks of debt in terms of its impact on the government's principal assets (the central government's revenue streams) and on other macro-variables, such as the impact on balance of payments financing requirements. This integrated risk analysis- 'integrated' as it combines the analysis of both the sensitivity of the macro variables to different types of shocks with the sensitivity of debt servicing costs to financial risks- is a basic application of ALM. More sophisticated approaches to risk analysis using financial modeling techniques can be adopted later once the capacity is developed using simple scenario analysis.

An ALM analysis of this type allows an evaluation not only of the impact of the risks of various types of debt under Malawi's basic funding strategy, but a consideration of the risks of alternative strategies for accessing different sources of financing. Generally speaking, Malawi's financing choices are limited, but it does have some currency choice from the African Development Bank and other creditors (although not from the World Bank, Malawi's largest creditor), and different currencies have different impacts on Malawi's BoP and the economy, and therefore on government revenues (an analysis of these exposures should be included in the macro-programming exercise). Different sources of financing also have different degrees of concessionality, and the degree of concessionality should be measured in simple terms, such as by measuring the present value of different funding sources. An integrated risk analysis of this type is the basis for a clear funding strategy. It also is a critical input into the budget exercise and the analysis of fiscal and balance of payments policies.

### **Integrating domestic debt**

The above type of analysis requires an integration of the analysis of domestic and external debt and the development of a joint strategy for managing the overall debt portfolio. Domestic interest rate shocks can have substantial impacts on fiscal sustainability and this needs to be considered together with the foreign currency risks of external debt. An integrated strategy also needs to incorporate plans for developing the domestic market for government debt of all maturities. Longer-term debt poses less interest rate and rollover risk than short term debt, and the lack of a developed domestic market for term debt adds substantial risk to Malawi's debt portfolio.

### **Other assets and liabilities**

**Foreign exchange reserves.** A number of countries reduce their debt risks by matching a portion of their debt portfolio against the currency and interest rate characteristics of their foreign exchange reserves. Malawi has made a start at this by holding its cash reserves in the currencies of its near term debt service, but it could also look at the possibility of matching a portion of the external debt against the currency composition of the investment portfolio of reserves. Whether this makes sense depends on the stability of this portfolio, so some analysis of portfolio stability would need to be done first, but to the extent such matching is possible, it will reduce the risks of the overall government balance sheet.

**Contingent liabilities.** An integrated analysis will also consider the risks of the government's contingent liabilities; in Malawi's case, this involves the debt of the parastatals. The guaranteed portion of parastatal debt is already being tracked, but the non-guaranteed portion (if any) also poses a risk and should be included. Because contingent liabilities are not the direct debt of the government, the strategies for managing their risks are different. The appropriate approach is to evaluate the risks of the guarantees at the time they are issued in terms of the riskiness of the project being financed and its priority in terms of the government's overall development plan, and to ensure sound financial and project management by the parastatals and line ministries. We understand the Minister has made it clear to the parastatals and line ministries that they need to get their house in order, and this is a good start, but rigorous financial analysis of the projects also needs to be done before guarantees are approved. A formal system for monitoring the financial performance and for promoting good project financial management should be put in place as well.

## **Institutional and Organizational Framework**

Sound debt management requires an institutional structure that provides clear accountability and responsibility for managing debt with clear reporting lines and coordination of information flows among the various units, and a well-trained and adequately compensated staff with the necessary skills to carry out their responsibilities. It also requires strong support from senior management at the highest levels; i.e., the Minister of Finance and Cabinet. Malawi has made a good start on these aspects by creating the Debt and Aid Management Division (DAD), completing a functional review of its purposes, functions and staffing requirements, and proposing a Debt Coordination Committee and Debt Operations Committee for reviewing and recommending debt policies. However, much still needs to be done. The DAD is far from being operational: it is understaffed, many of its functions still are being carried out by the Reserve Bank of Malawi (to the extent they are being done at all), and there is inadequate coordination of information flows between DAD, Budget Division, Economic Affairs Unit, and RBM. Line ministries and parastatals are particularly lax in providing timely information on disbursements and repayments. This has led to problems in debt recording, servicing, forecasting of financing requirements, and cash flow management. These problems could be improved with clearer reporting lines by and to the Debt Committees, and implementation of a more formal system of reporting and coordinating information flows.

### **Debt and Aid Management Division**

Best practice in many countries is the establishment of a debt office with sole responsibility for managing all aspects of debt. The creation of the Debt and Aid Management Division corresponds to this and, when fully operational, is consistent with best practice. However, it is very inadequately staffed at present, and its staff lack many of the skills and necessary training to carry out all of its functions.

It is critical that the positions be warranted by the Budget Division in MoF, and that the budget be approved for filling these positions during this fiscal year (although actual

recruiting may take longer-see below). The staff for these positions also must have the proper background and training to carry out their functions, and it is important that DAD play a central role in recruiting and in selecting the staff for these positions. Recruiting staff with the necessary skills will be difficult and will take time. The skills necessary to manage a funding program and to do debt and risk analysis are the same ones needed in the financial sector and RBM, and these institutions should be viewed as the main comparators in determining job levels and salaries. However, civil service salaries are very low relative to these comparators, and this will make it difficult to successfully recruit and retain qualified staff. One approach to filling the positions this fiscal year would be to consider seconding staff from RBM to DAD, particularly in the Domestic Debt Unit and the Policy and Strategy Unit. This would enable a more rapid transfer of responsibilities from RBM to DAD. If this is not possible, then these responsibilities should be transferred more slowly as and when DAD staff have acquired the necessary skills.

A structural program for training staff in DAD also would help fill this gap. Many debt offices have established a structural training program for their staff to ensure they have the adequate skills and to provide for regular staff advancement. Such a program would have a regular schedule of short courses in finance, economics and debt management, supplemented by formal training in universities, domestically or abroad. A program of this type can help attract staff who will recognize that such regular training will enhance their market value and provide for a clear career path. In this context, it is equally important that staff who are provided opportunities for external training do so under contracts that require that they remain in DAD for a fixed period following the training; e.g., that they are required to remain in DAD for one, two or three years for each year of external training, otherwise they are required to repay the costs of the training. We understand that such contracts have been used in the past, but not enforced. Although it may be difficult to enforce, it is important that such contracts are binding.

### **Information flows and reporting lines**

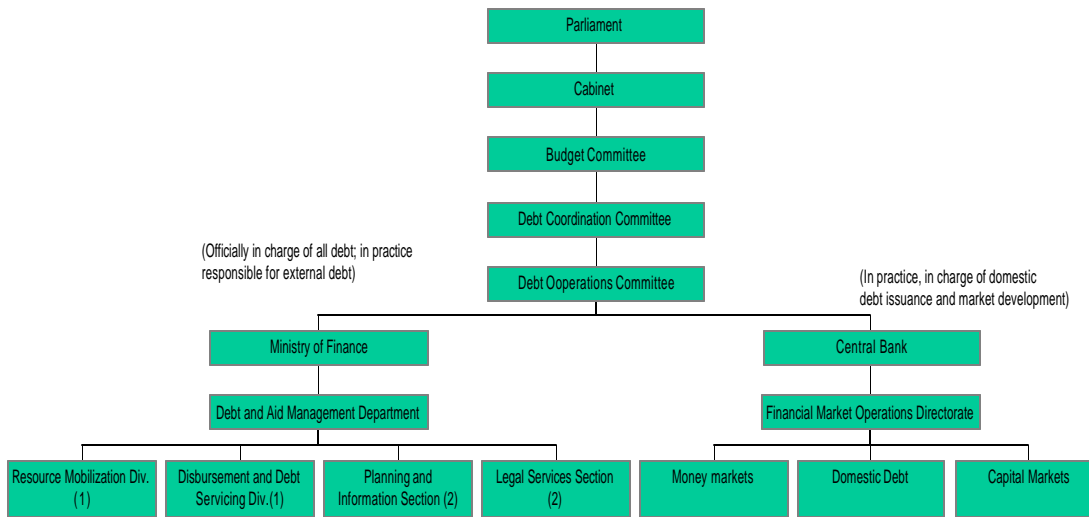
Much needs to be done to improve information flows in order to promote better coordination between debt management, cash management, budgeting and monetary policy. This can be facilitated by the establishment of appropriate committees and by formal responsibilities for regular reporting and management information reports.

**Reporting .** For its part, DAD should (i) produce monthly reports on new financing requirements, coordinating with the Budget Division, and (ii) coordinate its own issuance with the monetary policy needs of RBM (this will be difficult so long as both entities are issuing the same type of bills at the short end of the yield curve). Improvements in debt and disbursement recording also need to be made in DAD so as to provide more timely information to RBM and Budget for cash flow management and exchange rate policy.

**Committees.** An appropriate committee structure is important for coordination of information flows and establishing clear responsibilities and reporting lines. In this context, the establishment of the Debt Coordination and Operations Committees is a step in the right direction, and it is important that they be activated. However, the reporting lines of these committees-which are over the Ministry of Finance and which report to a

budget committee-do not correspond to best practice (see figure 1). In most countries with a consolidated debt office, such committees generally report to the Minister of Finance, who is responsible for all funding decisions and reports to the Cabinet and Parliament. In this context, we would suggest that the Debt Coordination Committee act as advisor to the Minister of Finance on major policy decisions regarding debt strategies.

*Figure 1*  
*Debt Management Coordination Structure for Malawi*



(1) Positions mostly filled.  
(2) Positions are vacant.

In support of the Debt Coordination Committee, the Debt Operations Committee should meet on a regular basis, perhaps weekly, to provide better coordination of information flows as well as to act as a technical committee for analyzing debt and preparing policy proposals. The senior committee (the Debt Coordination Committee) could meet as necessary to consider such policy proposals.

Consideration should be given to the creation of a separate loan committee, which would be responsible for approving all proposals for project loans, taking into account the financing requirements, budget implications and national development priorities. In Malawi’s current circumstances, where such project proposals are often coupled with specific funding proposals tied to creditor preferences, and many of the same entities would be involved as are represented on the debt committees, this may be redundant, and the Debt Operations Committee could perform this role as well. If so, appropriate representatives from the line ministries and parastatals could be included in the debt committee when these proposals are considered.

# **Sovereign Debt Management: The Front Office**

## **Objectives**

The main objective of the Front Office is to obtain funding for the government, in a cost-efficient manner, within the risk parameters and guidelines agreed by the Minister on the basis of recommendations from the risk management unit – the so-called Middle Office- and operationalized through benchmarks. The Front Office is thus responsible for the analysis and efficient execution of all portfolio transactions, which may include short- and medium-term borrowing in domestic and foreign currencies, as well as management of trading positions and hedging transactions.

All central government funding and hedging policy and transactions should be consolidated in one unit, although strictly operational aspects, in particular those related to domestic funding (i.e. auctions), can be delegated to the central bank. The consolidation of front office funding and hedging is a necessary, although not sufficient condition, for designing and implementing a consolidated funding strategy; such a strategy cannot be put in place if different units within the government (e.g. Ministries) are allowed to issue central government debt.

However, the front office itself is often divided into subsections, depending on different functional responsibilities, and staff tend to specialize to a certain degree by funding sources (e.g. foreign or domestic currency funding) or type of transaction (e.g. issuance of bonds or loans).

## **Possible Structure of a Front Office**

***The following structure has functional advantages:***

***Domestic debt issuance*** – The role of this sub-division would be to formulate issuance policy and coordinate the domestic debt borrowing program, (T-bills, floating rate notes, inflation-indexed bonds, etc.). In many countries, the operational function of domestic debt issuance (e.g. auctions and debt servicing) is delegated to the Central Bank, which acts as Fiscal Agent to the Government. (As there is a complete section of this study dedicated to the domestic debt market, no more will be said here).

***Foreign capital market debt issuance*** – The role of this sub-division would be to coordinate the international capital markets borrowing program. Governments may access international capital markets to diversify funding (by source and currency denomination) and/or to further extend the maturity profile if that is not possible in the domestic market. At this moment in time Malawi does not participate in the international capital markets, and does not have a sub-division involved in this area.

***Multilateral and bilateral loans*** – This sub-division would coordinate all the multilateral institutions' lending programs, and the bilateral institution's donor programs, including consultations, reviewing the loan terms, negotiating the loans and making sure that conditions set out in the loan agreements are feasible and adhered to. An analytical ability to cost the total donor package is required, in order to identify complementary grants and technical assistance that would *not* be available to a country without such loan facilities, thus enabling the sovereign to obtain an accurate determination of the all-in cost/value of the loan offers.

## **Front Office Responsibilities**

The Front Office is the unit in a government debt management office (DMO) that designs and implements the funding program, and that:

1. Operates in a legal and regulatory environment which:
  - Ensures that debt issuance is consistent with the specified borrowing limits;
  - Eliminates any legal uncertainty that might undermine the confidence of investors as to the obligation to service and repay government debt;
  - Ensures that the DMO can conclude transactions in a timely manner so that it is not penalized for being unable to function within normal market response times.
2. Evaluates new loan proposals, which includes the ability to assess i) the different instruments available in both domestic and foreign capital markets, ii) multilateral and bilateral loans, including their concessionality element and other financial terms, taking account of the grant and technical assistance components included in the loan package.
3. Analyzes all the markets in which the government can source funding. This requires the ability to scan prospects in different markets (both domestic and foreign, short and long term), in currencies and interest rates.
4. Conducts loan negotiations, which requires a professional understanding of contract terms and conditions
5. Coordinates with the middle office on the government's borrowing program to ensure that borrowing takes place within the parameters of the portfolio management strategy.
6. Communicates constantly with markets, investors, credit rating agencies, multilaterals and bilaterals. This can be achieved in the form of marketing roadshows, frequent publications on the country's debt profile and scheduled annual consultations, with regard to donor funding. Systematic communication provides the stakeholders with an understanding of the country's needs and priorities and its debt management strategies.

### **Summary of current situation and main actions required**

The Debt and Aid Management Department of the Ministry of Finance was recently created. This brings under one umbrella the bilateral and multilateral section, disbursement and debt servicing section, planning and information section and legal services section. Although a new division was created to manage domestic debt, at present the Department is only responsible for determining and executing the foreign borrowing program. This department is the focal point within the Ministry and the government as a whole for co-ordination and mobilization of external debt and aid. Currently, due to lack of staff, only two divisions are fully operational, namely:

- Resource Mobilization Division – responsible for coordinating external borrowing and aid, and liaising with the multilateral and bilateral institutions.
- Disbursement and Debt Servicing Division – responsible for coordinating all claims submitted from line ministries, preparing for disbursement, preparing repayment schedules for all loans, as well as maintaining all records of outstanding loan and aid programs.

Therefore, Malawi's front office is divided at present, with functions for domestic debt and external debt being handled by separate institutions: while the Reserve Bank of Malawi is responsible for the domestic borrowing program, all external borrowing activities have now been consolidated under the Debt and Aid Management Department. This division in part reflects the severe understaffing and lack of technical expertise of the Debt and Aid Management Department of the Ministry.

**Current situation:**

- a) Incomplete and outdated legal and regulatory framework.
- b) Understaffing and non-competitive salaries.
- c) Incomplete understanding of contract terms and structures and lack of relevant skills to evaluate different sources of funding, and to negotiate favorable loan terms.
- d) Lack of explicit funding strategy.
- e) Ineffective management of relationships with different stakeholders, such as the donor community and the market.

- f) Inadequate coordination with the Reserve Bank of Malawi and line ministries, and within the Ministry of Finance itself.

**Main actions required:**

- a) Review the legal and regulatory environment to enable efficient implementation of the borrowing program.
- b) Recruit staff to operationalize the front office of the Debt and Aid Management Department.
- c) Implement a well-structured training program, in consultation with MEFMI, the ADB and WB.
- d) Develop a funding strategy, within the parameters of the portfolio management strategy.
- e) Improve the relationship with stakeholders.
- f) Eventually, transfer domestic government debt front-office responsibilities from the Reserve Bank of Malawi, as and when the Debt and Aid Management Department has built the capacity to manage this program.

## 1. Legal and regulatory processes for debt issuance

A Debt Management Office (DMO) needs to be able to operate in a legal and regulatory environment which ensures that debt issuance is consistent with specified borrowing limits, and where there is no legal uncertainty that might undermine the confidence of investors as to the obligation to service and repay government debt. The authority to borrow should be clear, as should delegation of authority, and subsequent accountability and reporting. Many governments have in place legislation relating to powers to borrow, invest, and enter into other financial obligations, as well as requirements to report those decisions to the parliament through budget documentation, and/or other government financial reporting. Usually this legislation authorises the Minister of Finance to conduct all borrowing and related financial transactions on behalf of the government and establishes a maximum amount of new funding and guarantees that the Congress, Parliament, or the Minister of Finance can approve over a specified period (usually one year).<sup>2</sup> This overcomes the need to request specific authorizations from Congress or Parliament for individual transactions, which may introduce a range of political factors into the decision making and considerably delay the execution of transactions.

### Sound practice requirements:

Formal sets of delegations – An Act of Parliament usually stipulates that the Minister of Finance may delegate to the Head of the DMO specific powers, duties and functions that pertain to the management of public debt. This helps the DMO to conclude transactions in a timely manner, better take advantage of market opportunities, and ensure that projects are funded in the fiscal year in which they were budgeted for. These benefits could equally apply to concessional funding, inasmuch as loan negotiations may have concluded but projects not be implemented on time, due to decision-making delays caused by inadequate delegation. The degree of delegation may depend on the number of financial transactions the DMO undertakes every year<sup>3</sup>. Ministers of Finance therefore face decisions as to what borrowing and investment powers to delegate, whom to delegate these authorities to and how much decision-making authority to vest. These can be difficult decisions and governments tend to be cautious in making them.

Reporting of financial transactions – Delegation implies accountability. Therefore, it is highly desirable that an Act of Parliament determine that the Minister of Finance file an annual or semi-annual report with Parliament on past activities related to public debt management, and on plans regarding public debt management in the next fiscal year. This helps promote transparency and accountability, and encourages a debate on these issues, inasmuch as civil society has a better understanding of the country's debt situation. Investors, as well as international financial institutions, would also have a better knowledge of the government's future funding plans, as well as its developmental priorities. Therefore, borrowing could be less donor driven, and more in line with government priorities.

Sound practice sovereigns usually implement regular auditing of the financial transactions undertaken by the debt managers to assess their compliance with generally accepted accounting practices and the government's portfolio management policies and comprehensive reporting of financial performance to the Minister of Finance and/or Parliament. This reporting would review the financial transactions undertaken, assess the risks in the portfolio and the compliance with the risk management framework.

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<sup>2</sup> Sometimes multiyear targets are established in the form of a preset limit or debt ceiling.

<sup>3</sup> If the government is undertaking many financial transactions it is inefficient to require all transactions or elements of transactions to be approved by the Minister of Finance. Ministers of Finance and their deputies or associate ministers simply have too many responsibilities to be able to approve every investment and borrowing decision (although this would not necessarily be the case if the government seldom borrows in foreign currency).



**Description of current situation:**

There are currently four Acts in place, the Reserve Bank Act, the Exchange Control Act, the Banking Act and the Capital Markets and Securities Act, which govern the functioning of the financial sector.

**Governing legislation** – Section 180 of the Constitution of Malawi, 1994 stipulates that all borrowing, both local and external, raised by Government must have the authority of the Act of Parliament.

**Powers to borrow** – The Constitution gives authority to the Minister of Finance through the Finance and Audit Act of 1963 (Chapter 37:01) to borrow on behalf of the Government. The Act also provides the Minister of Finance powers to provide guarantees to Statutory Corporations and *Private Sector borrowing* upon approval by the National Assembly. The Minister is authorized to delegate powers to the Secretary of the Treasury to draw sums of money in any currency (pursuant to a loan agreement).

**Borrowing Authority / debt ceiling** – The Finance and Audit Act of 1963 only provides limits in terms of the amount of domestic debt issues that can be made in any given fiscal year, as well as the denominations.

**Reporting of financial transactions to the National Assembly** – No formal reporting takes place. The Minister of Finance does not submit an annual funding plan to parliament for approval. However, for each individual external loan obligation entered into, parliamentary authorization is necessary.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

An adequate legal and regulatory environment is necessary for the development of the domestic capital market. This will provide the protection that investors want before investing in the country's debt instruments. Credit rating agencies, which are powerful opinion makers, also put more emphasis on the legal and regulatory environment when assessing a country's likelihood to default on its debt. In all countries and particularly in developing countries like Malawi, it is necessary to ensure that formal delegations, authority to borrow, borrowing limits, and reporting procedures are implemented according to legal requirements. In the past, line ministries have managed to contract direct borrowings, indicating a loophole in the legal system.

**Gaps between desirable requirements and current situation:**

- Act only sets volume limits for domestic debt issuance, not total debt issuance.
- There is no specification of the objectives which foreign project borrowing should meet. (*Minister to borrow when the need arises*)
- Act does not provide protection for investors against events of default (country experiences are that event of default clauses should be clearly stated in an Act). In some countries the Constitution/Act provides for interest payments to be the first charge on National government revenue
- The Finance and Audit Act is outdated and needs to be amended. There is no independent Audit Office. The auditing functions are still handled within the Ministry of Finance as the Act stipulates.
- The DMO does not submit an annual funding plan to parliament for approval. Instead, parliamentary authorization is necessary for each individual external loan obligation entered into.

**Action plan:**

- The review of the Finance and Audit Act should be completed as soon as possible, to ensure proper delegation, accountability and transparency. This process will benefit from an assessment of sound practice in legal frameworks of public debt management in other countries.
- In order to encourage prudent fiscal policies and sustainable debt management policies, rather

than specifying an absolute ceiling of debt volume, in Malawi it may be prudent to set a target in line with its Medium Term Expenditure Framework and PSIP on the amount of debt that will be raised and projects financed in the medium to long term.

**2. Analyzes all the markets in which the government can source funding. This requires a good understanding of the various markets and the ability to scan prospects in different markets (e.g. multilateral and bilateral donors, international capital markets, domestic markets).**

**Sound practice requirements:**

A fully functional front office should be able to attract professional, well-trained staff, with competitive salaries to keep them motivated and focused. In many countries, the Central Bank will be responsible for administering the auction process for domestic financing on behalf of the Ministry of Finance, but the domestic financing policy decisions should be made by the debt office at the Ministry of Finance.

Staff should be able to analyze all the markets in which the government can source funding. This requires a good understanding of the various markets and the ability to scan prospects in different markets (e.g. multilateral and bilateral donors, international capital markets, domestic markets). An analysis should be made of rates in markets in which the sovereign may wish to raise funds by examining historic movements of currencies and interest on the basis of, for example, forward curves, the shape of the yield curve, ability to study the secondary market performance of the government's outstanding bonds relative to similarly rated sovereigns, and analysis of investor's preference and the economic fundamentals of a country.

Front office staff, in making funding decisions, will face choices of whether to borrow from official sources, or from commercial creditors. They must decide on what type of instruments to use, and in which markets it should seek to borrow foreign currency.

A well-structured training program should be developed, in order to continually upgrade the technical profile of the staff.

**Description of current situation:**

Currently, the Financial Market Operations Directorate of the Central Bank is responsible for determining and executing the domestic debt program. This Directorate has a team of well-trained and professional staff responsible for administering the treasury bill auctions, the issuance of locally registered stocks, as well as contributing to the development of the domestic government debt markets. It is also responsible for ad-hoc facilitation of relationships with market participants. The Directorate has three divisions -Money Markets, Domestic Markets and Capital Market Development- each headed by a Manager and has fifteen staff in total. The entry salary levels for an analyst in the Bank is significantly higher than that of an equivalent officer at the Ministry of Finance. The Bank provides its staff with both in-house training and occasional external training. The Directorate of Financial Market Operations has an explicit Training Policy, which is annually submitted for approval to the Human Resources Department of the Bank.

The Debt and Aid Department of the MoF has a Resource Mobilization Division, responsible for coordinating external borrowing and aid, and liaising with the multilateral and bilateral institutions. Malawi does not issue bonds in the international capital markets, and therefore does not have a division involved in issuing debt in the international capital markets. The understaffing is generalized throughout the Department, including the front office, which in addition, does not have adequately trained employees.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

These skills are relevant to Malawi as a borrower. Ability to access and assess multilateral and bilateral funds is very important to Malawi at present. As Malawi does not as yet access commercial foreign debt,

ability to assess foreign commercial markets is relatively less important except to gauge concessionality.

**Gaps between desirable requirements and current situation:**

The Debt and Aid Management Department is severely understaffed. The Debt and Aid Department should have stronger front office capacity, in order to be able to negotiate and obtain funding on efficient terms, in particular with regards to external funding, and to be able to participate more actively in the policy work behind the development of the domestic government debt market. Moreover, while the Resource and Mobilization Division is carrying out front office activities, its staff do not possess the necessary skills and experience to enable them to carry out their functions in the most effective and efficient manner.

Of the 50 vacancies of the Debt and Aid Department, only 17 are filled. Therefore, while the structure has been formally established, in reality functions are still handled by different directorates, with staff frequently rotating. As a result, there is no clear focus on the Department's role in the Ministry. While there are funds available for training, staff shortages make it impossible to send people away for training.

**Action plan:**

The Ministry should recruit staff to operationalise the front office of the Debt and Aid Management Department. Staffing and training are the most important steps to take in order to strengthen debt management practices in Malawi. The head of the front office is a critical appointment, and should have a background in finance and funding transactions, combined with a good understanding of risk management considerations and the types of public policy issues associated with sovereign debt management. The head of the front office should be able to train other front office staff and build their technical and market knowledge. Junior front office staff can be new graduates with background in finance, ideally with some experience in the Central Bank. However, finding front office staff may be relatively difficult, due to both a shortage of professionals with finance and funding experience in Malawi, and because of the low civil service salaries.

A structured training program should be adopted, covering the different front office functions. This could be in the form of coordinating with institutions such as MEFMI, the African Development Bank, and the World Bank so as to develop well structured training programmes that can strengthen capacity, and occasionally sending people abroad. Training can be a valuable attraction for potential new entrants and for retaining existing staff, as it helps offset some concerns about salary levels.

The responsibility to manage the government's domestic debt can be shifted to the Debt and Aid Management Department as and when the staff's capacity has been developed.

**3. Conducts loan negotiations, which requires a professional understanding of contract terms and conditions**

The front office staff should have the ability to assess the best possible sources of international project loan financing. Normally the so-called "complementary measures such as Grant and Technical Assistance" that accompany concessional project loans are difficult to quantify. In some cases grant and technical assistance could be acquired without having to enter into a loan agreement. Early donor commitment on resource allocations is essential to determine whether the projected budgetary expenditure commitments required for ensuring successful project implementation, have been determined accurately. The negotiations normally center on:

- Loan terms and conditions (currency denomination, interest rate, grace and repayment periods, etc)
- Complimentary measures in the form of grants and/or technical assistance
- Lender-specific conditionalities regarding project preparation, implementation, reporting, monitoring and evaluation and loan administration; and time frames

**Sound practice requirements:**

Well trained staff with good negotiating skills and a professional understanding of different contract terms and structures.

**Description of current situation:**

Although the Resource Mobilisation Division is functional, only one official has undergone training on how to handle negotiations with donor institutions.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

Since Malawi will continue to rely of donor funding in the short to medium term, it is necessary that its staff be fully trained to handle negotiations with donor institutions. Since most of these institutions have highly experienced teams of negotiators, projects tend to be donor-driven.

**Gaps between desirable requirements and current situation:**

There is a gap between donor community's well trained and professional staff and the inability of Malawi's staff to be fully effective in engaging the donor community.

**Action plan:**

Capacity building and training in loan structuring and negotiation skills that would strengthen Malawi's ability to engage the donor community in a pro-active manner.

#### **4. Coordinates with the middle office on the government's borrowing program**

**Sound practice requirements:**

The front office normally consults with the middle office on the portfolio management strategy, in order to design and implement the funding strategy accordingly. This will influence which instruments to issue, in what maturities, the proportions of foreign and domestic debt, the fixed/floating interest rate mix, and whether the loans should be sourced from capital markets or from multilateral or bilateral institutions, etc.

**Description of current situation:**

Currently there is no middle office or debt management strategy. The system of evaluating borrowing terms is ad-hoc and not informed by a clear funding policy.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

Malawi's debt raising activity needs to be based on a debt strategy as much as any other sovereign borrower, so coordination between the front and middle office is relevant.

**Gaps between desirable requirements and current situation:**

Malawi lacks a middle office function and so lacks a debt management policy and strategy that is implemented in the government's borrowing program. A longer term borrowing program needs to be developed, which takes into account available sources of finance as well as the cost and risk implications for the total debt portfolio.

**Action plan:**

- A clear funding strategy for external and internal borrowing, as well as for grant negotiation, needs to be developed, within the context of a portfolio management framework.
- A comprehensive database of terms and conditions of all concessional project loans available to the government should be developed to permit accurate assessment of their relative concessionality.

**5. Communicates constantly with markets, investors, multilaterals, bilaterals, and eventually, credit rating agencies.**

**Sound practice requirements:**

Communication can be achieved through marketing roadshows, frequent publications on the country's debt profile and scheduled annual consultations with regard to donor funding. Providing information on debt program implementation promotes transparency and predictability. Systematic communication also provides the stakeholders with an understanding of the country's needs and priorities and its debt management strategy.

**Description of current situation:**

The Debt and Aid Department communicates with the donor community frequently. There are annual consultations with donors.

The central bank, as advisor to the government, normally communicates with participants in the domestic market. The communication is not frequent and is demand driven. The Debt and Aid Management Department has no active role in this sense.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

Constant communication to the relevant stakeholders produces an understanding of the country's needs and strategies. This may lead to the development of tailor-made programs, to the benefit of the country.

**Gaps between desirable requirements and current situation:**

There is no structured communication strategy, and a clear debt management strategy is also lacking.

**Action plan:**

It is necessary to (i) adopt a clear policy and strategy for debt management and (ii) to constantly communicate the policy to all stakeholders

## **Sovereign Debt Management: The Middle Office**

### **Objectives**

The main objective of the middle office of a sovereign debt management office is to provide the analytical work required for strategic debt management and risk monitoring and control. The purpose of this is to achieve the most suitable balance between cost and risk in the government's debt financing. The middle office facilitates strategy formulation by senior management and promotes decision-making within the context of an agreed strategy. In addition, it is responsible for the measurement and management of risks to which the country is exposed.

### **Middle Office Responsibilities**

1. In coordination with the back office, project the medium-term debt servicing cash flows of both existing debt and projected new financing.
2. Produce debt profile reviews of the debt's main financial characteristics.
3. Implement debt sustainability analyses, in coordination with the macroeconomic units of the Ministry and the central bank.
4. Using cash flow financial models, identify and quantify the financial risks of the debt portfolio, in terms of currency, interest rate and refinancing risk, and help determine the government's financial risk tolerance. Then carry out analyses of a simplified sovereign balance sheet, taking into account the main sovereign assets and liabilities, in order to study the relationship between their financial characteristics.
5. Coordinate with the macroeconomic policy divisions of the MoF and central bank, in order that the financial risk modeling of the debt portfolio feeds into, and is responsive to, the macroeconomic programming models.
6. In accordance with government risk tolerance, government objectives, and coherence with other macro-economic policies, advise senior decision-makers on sustainability and cost/risk tradeoffs of alternative strategies as the basis for their decision on the optimal debt strategy under Malawi's circumstances.
7. Design benchmarks, or reference portfolios, which reflect the chosen debt management strategy, and which will subsequently act as guidelines for the front office in its funding and hedging operations.
8. Act as Secretariat to the Committee responsible for approving and monitoring debt management (in Malawi the Debt Coordination Committee), by preparing periodic reports on the debt portfolio as well as proposals for strategies and benchmarks, to be decided on by the Minister with the advice of this Committee. Inform other interested parties (National Assembly, HIPC officials, credit rating agencies, etc.) on the state of the debt portfolio and contingent liabilities, vis-a-vis the approved strategy and benchmark, analyzing deviations from the approved guidelines in terms of cost and risk.
9. Implement the control/compliance/performance monitoring role of the middle office.
10. Identify and quantify exposures of contingent liabilities, and design strategies that will allow the exposures to be monitored by the Debt Office.

### **Summary of current situation and main actions required**

The middle office of Malawi's DMO needs strengthening, in order to go beyond the type of occasional analysis that has been done up to now -namely, debt portfolio review and debt sustainability analysis through simple ratios, produced with the help of outside agencies - to a more periodic and comprehensive study of the cost and risk characteristics of the debt portfolio, as the basis for designing the debt management strategy and managing risks.

The main obstacles to strengthening the middle office in Malawi are the lack of technical staff and lack of a clear mandate and strong political support to perform its particular analytical functions. In this sense, the

proposed modification of the DMO structure, which includes a middle office in the Debt and Aid Management Department (DAD), does not give sufficient weight to the analytical dimension required, as proposed staff are mainly back-office officers performing duties related to data base recording. This arrangement has an historical explanation, as the middle office structure was built around the few employees who had knowledge of CS-DRMS. Furthermore, work still continues on consolidating the data base, which is a short-term priority but which strictly corresponds to the back office.

Analytical functions of the middle office cannot successfully be carried out by front office staff, because the latter are caught up in the day-to-day funding operations, with the result that the analytical and strategic work is put aside.

Rather, sound practice indicates that specific staff must be designated to the middle office, and that they should have a financial technical background in order to carry out the necessary risk modeling and design of debt portfolio management. Some staff should also have an economics background, to analyze how debt management coordinates with macroeconomic policy, for participating in the write-up of strategy papers, and for carrying out comprehensive debt sustainability studies. As financial models of debt servicing risk should feed into, and be responsive to, macroeconomic programming models, some middle office staff should have a basic understanding of these macro models and be able to coordinate with the corresponding units of the MoF and the central bank.

In the near-term at least two of the middle office staff should have a strong analytical profile and background, as well as fairly senior technical staff positions. Once a clear analytical mandate has been established, and more staff are recruited for the middle office (including junior staff), a structured training program can be implemented, possibly with help from entities such as MEFMI and The World Bank. Debt profile reviews and debt sustainability analyses should be produced on a regular basis. The studies can be presented to the Committees responsible for debt management, both at senior (DEbt Coordination Committee) and technical (Debt Operations Committee) levels, in order to design and authorize a short-term debt management strategy. The strategy implementation (including possible deviations) should be periodically communicated to the MoF and Central Bank macro-economic units.

In the medium-term, the middle office functions should center exclusively on analytical functions, and consequently the staff chosen to integrate this unit should reflect this orientation. By then, the staff will have a stronger technical profile, and will be able to utilize a cash flow-based risk model, in order to carry out risk/cost analysis. They should be able to analyze in detail the financial characteristics of the government assets and liabilities, in order to study ways of matching these characteristics, and reduce sovereign risk. The staff could complement their training with a visit to DMOs in other countries, so as to meet their middle office counterparts and better understand middle office sound practice and modeling. As a result of this middle office consolidation, a comprehensive medium-term debt management strategy can be devised, and then operationalized through benchmarks proposed by the middle office and approved by the Debt Coordination Committee.

## **1. Project the medium term debt servicing cash flows of both existing debt and projected new financing**

### **Sound practice requirements:**

Sound-practice requires coordination with the back office, in order to have access to a complete, updated and high-quality data base, that can be easily manipulated so as to periodically project medium term (e.g. 10-15 year) debt-servicing cash flows. These cash flows are the basis for analyzing the cost and risk dimensions of the debt portfolio. There should be a single authoritative database that supplies this information.

### **Description of current situation:**

The Debt and Aid Management Department periodically loses staff trained in CS-DRMS, thus losing

capacity to produce the basic projections of existing and future debt.

**Relevance of sound practice to country situation and desirable requirements in country situation:**

Projection of debt service cash flows is the basis for almost all middle office analytical work and as such is essential to this unit. Eventually the projections may be produced solely by the back office, but as it is so important for the middle office, in the near term everything must be done to guarantee the continuous production of projections of debt service cash flows.

**Gaps between desirable requirements and current situation:**

All middle office staff, both senior and junior, should learn how to use CS-DRMS and DSM+ to produce basic cash flow-projections. At present the middle office exists only on paper. Recruiting and training of middle office staff is of the highest priority.

**Action Plan:**

(see consolidated Action Plan at end of this section)

## **2. Periodically produce debt profile reviews of the debt's main financial characteristics**

**Sound practice requirements:**

The Debt Profile Review should be produced regularly (e.g. quarterly) and be comprehensive, including: foreign and domestic debt; central government, parastatal debt (both guaranteed and non-guaranteed), and debt on-lent by the central government to other entities. This will allow policy-makers to have a quick and updated description of the debt profile, and of debt-originating portfolios on the asset side.

The debt profile typically describes relevant financial features of the portfolio, through indicators of: funding sources and destinations; external debt/total debt; currency profile; interest rate structure (e.g. floating interest rate/total debt); debt portfolio maturity; average portfolio life; duration; repayment profile; percentage in arrears, etc. The Review may wish to include some measures of debt levels with relation to sovereign assets, as a brief summary of a debt sustainability analysis which will allow policy-makers to monitor this dimension, (e.g. debt/GDP; debt service/exports, external debt service/exports, etc.).

The profile is calculated based on data from both outstanding debt balances and the medium-term projection of debt servicing cash flows.

**Description of current situation:**

The Malawi Debt Portfolio Review (produced in 1999 by the Ministry of Finance and the Central Bank, with the help of MEFMI) makes an important contribution to the analysis and preliminary design of a strategy. However, it can be further developed in order to have a better vision of the different types of risk (currency, interest rate and refinancing risk), as well as a more complete description of domestic debt. A debt profile review is necessary input to strategic thinking about debt in Malawi.



**Gaps between desirable requirements and current situation:**

- The first Debt Portfolio Review was done with the help of the central bank and MEFMI, and with UNDP financing. In the future, it is advisable that the Review be done quarterly as part of the normal activities of the middle office, without the need for external assistance nor special funding efforts.

Specific comments on the Review are listed as follows:

- The repayment profile could be more detailed, in order to analyze refinancing or roll-over risk in any given period (e.g. The “Debt by maturity structure” could show the complete principal repayment cash flow, year by year, for next 15-20 years.).
- The external debt service should also include that of the central bank as this can be relevant for aggregate debt sustainability and risk management.
- In analyzing currency composition, the Review only mentions having flexibility in choosing currencies for debt servicing, but there is no description of the currency structure of the debt stock. There may be, for example, significant currency risk from appreciation of the SDR denominated debt. One possibility would be to break down the SDR into its currency components to get a clearer analysis of currency risk.
- Description of debt maturity of the debt is insufficient for analyzing refinancing and interest rate risk, as it does not take into account intermediate cash flows (e.g. amortizing or non-bullet credits). Therefore, it would be useful to describe the combined external and internal refinancing profile of the central government debt, as well as its average life and McCaulay’s duration (weighed by each debt’s volume) to describe total debt refinancing and interest-rate risk.
- It would be useful to present the evolution of the T-bill interest rate over time, as well as a description of the main investors in tbills, and their placement mechanism (auctions vs. forced placement with financial entities etc.). It is possible that a more complete definition of domestic debt may be needed (e.g. payment arrears of the government) in order to have a more realistic idea of aggregate liabilities.
- A description should be made of important contingent liabilities (e.g. guarantees).
- The review could include a description of on-lending by the central government and the quality of this asset.

**Action Plan:**

(see consolidated Action Plan at end of this section)

**3. Carry out debt sustainability analyses, in coordination with macro units of the Ministry of Finance and the central bank**

**Sound practice requirements:**

Not all DMO middle offices carry out this type of analysis, but it is a necessary function in countries experiencing debt sustainability difficulties and seeking debt relief. The analysis should continue to be carried out in coordination with the fiscal unit of the MoF and the central bank.

**Description of current situation:**

The Debt and Aid Department has participated in a debt sustainability analysis, in coordination with other units of the MoF and the central bank, and with the help of MEFMI. In August of this year, a request for HIPC debt relief was being presented by the Malawi authorities.

**Relevance of best practice to country situation and desirable requirements in country situation:**

This analysis is essential for the HIPC review and will probably be central to any debt management strategy for some time to come.

**Gaps between desirable requirements and current situation:**

The middle office should consolidate its technical expertise in order to periodically carry out this type of analysis, without assistance from MEFMI.

**Action Plan:**

(see consolidated Action Plan at end of this section)

**4. Using cash flow financial models, identify and quantify the financial risks of the debt portfolio, in terms of currency, interest rate and refinancing risk; in order to determine the government's risk tolerance and design a debt management strategy. Then carry out analyses of a simplified sovereign balance sheet, studying the relationship between the financial characteristics of the main sovereign assets and liabilities.**

**Sound practice requirements:**

Medium-term cash-flow models are typically used in sound practice debt management, based on projections of debt servicing costs and amortizations of both the existing debt portfolio and future financing requirements.

This type of model allows the projection of base case scenarios for debt servicing in the medium-term, as well as of risk scenarios under different assumptions about volatility of the currency and interest-rate variables. Sensitivity analysis allows the quantification of risk, or volatility of debt service cash flows. Risk quantification can be expressed in terms of these cash flows or in terms of their present values. This would enable the Minister and his team to analyze different debt structures in terms of the cost and risk as quantified by the model, and decide what levels of debt service volatility can be tolerated, in return for lower cost of debt.

The final strategy would be based on matching the characteristics of sovereign assets and liabilities, on modeling the cost/risk trade-off of different debt strategies and on the sovereign's tolerance for risk. Having quantified and analyzed different debt strategies, the Malawi authorities can then choose the most appropriate one.

**Description of current situation:**

At present, DAD lacks a model of this type, and is unable to help establish the government's risk tolerance, as input for designing the debt strategy. It also lacks a study of the most important financial characteristics of the government assets, so as to try to replicate them through the debt characteristics and so reduce risk for the government as a whole.

**Relevance of best practice to country situation and desirable requirements in country situation:**

A cash-flow model of this type would allow the Malawi authorities to project possible shocks to debt servicing, and consequently to the government budget, which is already over-exposed to debt servicing.

Risk quantification would also be useful for debt sustainability analysis under varying assumptions. Moreover, this type of modeling would be necessary for determining the government's risk tolerance.

**Gaps between desirable requirements and current situation:**

A simple, practical model can be implemented, which must be well understood by both technical staff and senior management. Sophistication can be added as capacity grows. The underlying conceptual framework should be understood by all. For example, cost and risk should be understood in terms of the impact on the budget of the cost of debt, and risk as the volatility of these costs. Training will probably be required in the conceptual framework underlying a model of this type, and on the risk implications of non-matching sides of the sovereign balance sheet, as well as in modeling itself.

**Action Plan:**

(see consolidated Action Plan at end of this section)

**5. Coordinate periodically with the macroeconomic policy divisions of the MoF and central bank, in order that the financial risk modeling of the debt portfolio feeds into, and is responsive to, the macroeconomic programming models.**

**Sound practice requirements:**

The DMO should be able to periodically inform the macro-economic programming units in the MoF and the central bank, of possible debt servicing scenarios, according to sensitivity analyses, in order for them to analyze their fiscal and monetary implications. Likewise, macro programming under varying scenarios (growth, savings, BOP, inflation etc.) as calculated by macro units of the MoF and central bank, should be periodically incorporated into the projected debt servicing analysis.

**Description of current situation:**

There is some limited coordination between DAD, the RBM and the macro programming units. At the beginning of the year, macro assumptions are fed into the debt projections. However, there are no regular updates on the part of the budget unit, so there is significant uncertainty regarding the amount of debt that must be issued.(e.g. T-bills). The information should also flow more regularly to the budget office: because there is little margin for flexibility in the budget, possible delays in disbursement of donor loans can have a major impact on the government's cash management.

**Relevance of best practice to country situation and desirable requirements in country situation:**

Coordination and information flows are important in any country, but are especially relevant in Malawi where debt sustainability is an issue and there is an imperative need to continually review and understand the relation between the government's asset and liability cash flows. This relation is greatly influenced by the macroeconomic assumptions underlying the programming and as such DAD must have updated information of macro -projections.

**Gaps between desirable requirements and current situation:**

Frequent updating of information between the debt managers and budgetary units is essential. Ideally, the macro and micro models would have interfaces, but that can be more of a medium-term exercise; in the

short term, the interfaces can be manual.

**Action Plan:**

(see consolidated Action Plan at end of this section)

**6. In accordance with government risk tolerance, government objectives, and coherence with other macro-economic policies, advise senior decision-makers on sustainability and cost/risk tradeoffs of alternative strategies as the basis for their decision on the optimal debt strategy under Malawi's circumstances.**

**Sound practice requirements:**

Typically, the middle office provides the analytical work necessary for a proposal on the optimal debt strategy, to be discussed by the Debt Operations Committee at a technical level and the Debt Coordination Committee on whose advice the Minister will make the ultimate decision. It is impossible for a technical proposal to be made without the necessary studies of risk tolerance, government objectives, cost-risk tradeoffs, debt sustainability and coherence with other macro-economic policies.

**Description of current situation:**

There is some analysis which serves as building blocks for a debt management strategy (debt profile review and sustainability analysis) but there are still important gaps, and as such there is no systematic debt strategy under discussion (apart from elements such as obtaining HIPC debt relief).

**Relevance of best practice to country situation and desirable requirements in country situation:**

The analysis required for a debt strategy is especially relevant for post-HIPC countries, that have obtained debt relief, resolved an unsustainable level of indebtedness and who would benefit from establishing guidelines that will help them avoid getting into that situation again by helping them control the financial risk dimensions of the debt.

**Gaps between desirable requirements and current situation:**

Middle office and senior management both need training and better analytical bases in order to develop a technically proficient debt management strategy.

**Action Plan:**

(see consolidated Action Plan at end of this section)

**7. Design benchmarks, or reference portfolios, which reflect the chosen debt strategy, and which will act as guidelines for the front office in its funding and hedging operations**

**Sound practice requirements:**

A strategic liability benchmark represents the market-neutral characteristics of the desired debt portfolio, and expresses the sovereign's preferences with regards to risk/cost tradeoffs. It operationalizes and quantifies, using a few simple risk indicators, the sovereign debt management strategy. Benchmarks are not based on forecasting the evolution of currency and interest rates; market views can be incorporated in deviations from the benchmark.

Typical indicators include: domestic currency debt/total debt; currency composition of external debt; and interest-rate structure (fix-floating mix, duration; percentage of principal payments due in any given period).

**Description of current situation:**

Benchmarks are lacking.

**Relevance of best practice to country situation and desirable requirements in country situation:**

Relevant, but not implementable at present, as debt management strategy based on cost/risk analysis must be developed first. It should, however, be an objective over the medium-term.

**Gaps between desirable requirements and current situation:**

Once the Malawi DMO has designed a debt management strategy, it can operationalize it through a benchmark. The middle office needs a stronger technical capacity in order to design benchmarks.

**Action Plan:**

(see consolidated Action Plan at end of this section)

**8. Act as Secretariat to the Committees responsible for debt management, by preparing periodic reports on the debt portfolio as well as proposals for strategies and benchmarks. Report to other interested parties (National Assembly, HIPC officials, credit rating agencies, etc.) on the state of the debt portfolio and contingent liabilities, vis-a-vis the approved strategy and benchmark.**

**Sound practice requirements:**

The middle office usually acts as Secretariat to the Committees responsible for developing and monitoring debt management. The middle office provides the Committees with regular debt reviews, risk management papers, debt sustainability analyses, etc. It also presents proposals for strategies and for benchmarks, to be decided on by the Minister, with the advice of the Committees. Subsequently, it monitors the performance of the debt portfolio with regards to the benchmark, and explains possible deviations from the benchmark

A technical risk-management culture imposes a greater responsibility on the DMO, in terms of accountability. Sound practice DMO make periodic reports to interested third parties outside of the Ministry, in order to ensure transparency and accountability.

**Description of current situation:**

In the case of Malawi, two Debt Committees have been planned, the Debt Operations Committee (technical) and the Debt Coordination Committee (advisory), but are not yet operating, partly because there is no Secretariat to present technical papers and proposals. While DAD has started doing analytical papers, with the help of other government agencies and MEFMI, it still has not consolidated this capacity and cannot as yet give periodic reports on debt management to third parties.

**Relevance of best practice to country situation and desirable requirements in country situation:**

Any country requesting debt relief will need to be continually providing information on the debt profile, debt strategy and deviations from it, not only to the internal Committees, but also to interested third parties. It is the middle office that regularly supplies reports.

**Gaps between desirable requirements and current situation:**

The middle office and committees are not fully functional. The Debt Coordination Committee would act as advisor to the Minister on policy issues and meet as needed, to consider specific issues. The Debt Operations Committee could meet on a regular basis, to ensure better coordination of information flows and analyze policy proposals prepared by the middle office. In both cases the middle office would be counted on to prepare papers and proposals, and act as a Secretariat.

The DMO needs to reinforce the middle office resources in order to have the capacity to produce periodic, high-quality reports to all interested parties, and possibly set up a web-site with information of its debt portfolio, and other liabilities.

**Action Plan:**

(see consolidated Action Plan at end of this section)

**9. Implement the risk control/compliance/performance monitoring role of the middle office**

**Sound practice requirements:**

The middle office typically has operational risk control and compliance functions, in order to monitor compliance of the front office in relation to limits on tactical trading (deviations from benchmarks, for example), credit limits and settlement exposure. It is also involved in the approval of new bank accounts, and in the initial assessment of banks' creditworthiness, in order to propose a policy on counterparts for carrying out hedging operations. It carries out the analysis (due diligence) of any new funding or hedging instruments in order that the implications, especially risk characteristics, are fully understood.

**Description of current situation:**

There are few guidelines of this sort set up for the front office, so compliance is not being monitored.

**Relevance of sound practice to country situation and desirable requirements in country situation:**

This function will gain more importance once the middle office has been strengthened, and there is a strategy in place, and benchmarks to monitor.

**Gaps between desirable requirements and current situation:**

The middle office should be strengthened in order to acquire knowledge of its typical control/compliance and performance monitoring role.

**Action Plan:**

(see consolidated Action Plan at end of this section)

**10. Identify and quantify exposures related to contingent liabilities, and design strategies that will allow the exposures to be monitored by the Debt Office**

**Sound practice requirements:**

This is a function that is sometimes assigned to the middle office, as managers of the government's liability risk. Its duties typically are to identify and quantify exposures related with contingent liabilities (CL), and design strategies that will allow the exposures to be monitored. Governments need to control their exposure including CL which are often off-budget, creating a bias towards off-budget financing. At the very least, governments should identify the inventory of CL. They should also limit CL to those that generate a clear public good or are needed to avoid systemic crisis, because when they are not clearly limited they tend to create moral hazard for the government. The Government should charge for CL, undertake budget reform to account for the cost of CL, and develop risk management capacity. In some cases, the middle office may help parastatal agencies and major sub-national entities develop a risk management strategy and culture, with regards to their own debt.

**Description of current situation:**

There are plans for creating a unit in the MoF that will deal with budgetary issues related to parastatal entities, to promote income generation and a greater discipline in expenditure. This unit would also become involved in making the necessary budgetary provisions required to take over guaranteed debt of the parastatals.

**Relevance of sound practice to country situation and desirable requirements in country situation:**

If CL are not adequately identified and monitored, they may affect the budget in an unexpected way, raise the level of indebtedness and affect the debt management strategy.

**Gaps between desirable requirements and current situation:**

CL should be identified and managed, in particular, the debt of parastatals, both guaranteed and non-guaranteed.

Even when the parastatal budgetary unit in the MoF has been created, there is also a role for the middle office of DAD in terms of analyzing the risk for the central government, over and above any budgetary provisions based on expected cost. Again, greater technical expertise and modeling capacity is necessary for the middle office to carry out this function.

**Action Plan:**

(see consolidated Action Plan at end of this section)



## **Action Plan for the Middle Office**

### **Near term (e.g. one year):**

- Establish a clear analytical mandate, and get upper management support to contract analytical staff and give them the necessary systems resources.
- As soon as possible, recruit two additional middle office staff, with strong analytical profiles and backgrounds, in fairly senior technical staff positions.
- Complete recruitment of middle office staff (including junior staff, which for the moment may have some back office functions, such as consolidation of the debt data base).
- Structure a training program, possibly with help from entities such as MEFMI, ADB and The World Bank, in order to cover all the middle office areas during a 12-month period, including use of CS-DRMS and DSM+, but also the analytical frame work of debt management, typical risk indicators, risk and cost considerations, the use of cash flow modeling, construction of strategic debt portfolio benchmarks, the experience of other countries in setting up middle office functions and organizational arrangements and issues. Possibly there will be a need to review financial mathematics, the methodology of debt profile reviews, and debt sustainability analysis.
- Project medium-term debt-servicing cash flows of existing debt and projected new financing, in conjunction with back office staff.
- Regularly carry out debt profile reviews and debt sustainability analyses.
- Activate the Debt Coordination Committee and Debt Operations Committee, which have not been meeting, and present debt service cash flow projections, debt profile reviews and sustainability analyses to the Committees in order to evaluate short-term debt management strategies, which will probably be HIPC influenced.
- The strategy formulation and implementation (including possible deviations) should be periodically (e.g. monthly) communicated to the MoF and Central Bank macro-economic units.

### **Medium-term (after one year):**

- In the medium term, the middle office functions should center exclusively on analytical functions, and consequently its staff should reflect this orientation.
- The staff could complement their training with a visit to DMOs in other countries, so as to meet their middle office counterparts and better understand middle office sound practice and modeling.
- Implement a cash flow-based risk model, in order to carry out risk/cost analysis.
- Analyze in detail the financial characteristics of the government assets and liabilities, in order to study ways of matching these characteristics, and so reduce sovereign risk.
- A comprehensive medium-term debt management strategy should be designed, with input from the front office.
- Benchmarks should be designed by the middle office and approved by the Debt Management Committees, as a way to operationalize the debt management strategy.
- Implement the risk/control/compliance role of the middle office. e.g. not only analyzing deviations from the benchmark and reporting on performance, but also functions such as analyzing new funding and hedging instruments and credit risk exposures.
- Identify and quantify exposures of contingent liabilities, and design strategies that will allow the exposures to be monitored by the debt office.

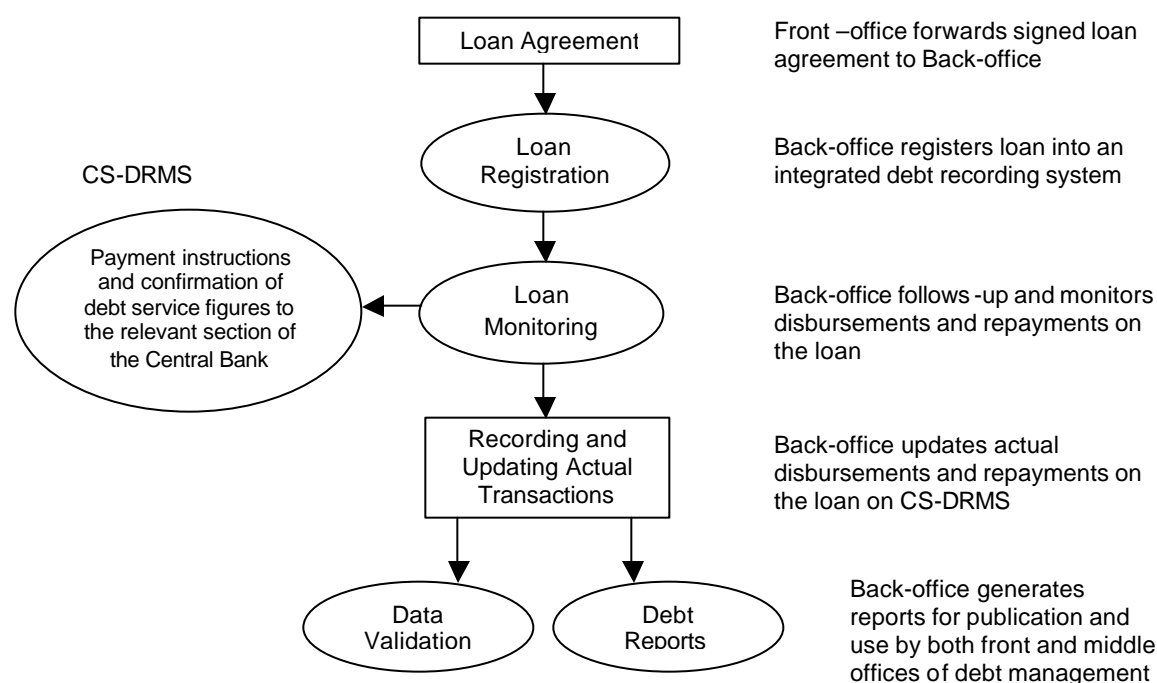
## Sovereign Debt Management: The Back Office

### Objective

The objective of the back-office is to create and maintain a high quality and updated data-base of the debt portfolio that will allow timely debt registration, disbursement, servicing and accounting.

The back-office functions of a debt management office entail the maintenance of a comprehensive, up-to-date and consistent debt database. The office is responsible for the registration of loan agreements into an integrated debt recording system, in the case of Malawi, CS-DRMS. After registration, the office is expected to monitor and follow-up on loan disbursements and repayments. While debt servicing may not be this office's direct function, it is expected that information on timely payments of debt will emanate from the back office. This requires the recording of all transactions (disbursements, debt service, etc) on the same debt recording system. Transactions that occur on each and every registered loan should be up-to-date and consistent; otherwise, regular validation of the debt database should be undertaken.

### Functional and Information Flowchart:



Back-office debt management functions should link-up with both the front and middle offices to ensure a transparent and timely flow of information. The debt recording system used in the back-office should also be compatible with systems used by other related departments in the debt management hierarchy. Ultimately the back-office should be able to generate consolidated debt reports that can provide essential input into the country's debt policy formulation process.

## **Back Office Responsibilities**

### Debt Recording and Statistical Aspects – Back Office

1. Procedures for registration of external loans – Government and Parastatals
2. Procedures for monitoring disbursements - Government and Parastatals
3. Procedures for debt service agreements - Government and Parastatals
4. Procedures for recording domestic debt
5. Data validation
6. Staff recruiting and training

## **Summary of current situation and main actions required**

### **Current situation and action plan**

Currently, the Disbursements and Debt Service Section under the Debt and Aid Management Department performs the back-office functions of recording, monitoring and database management. It uses the CS-DRMS system to record and monitor foreign debt. Government and parastatal external debt has been captured into the system and validation is done periodically to ensure that the database is always accurate and consistent. The Reserve Bank of Malawi, which is also responsible for debt service payments, also maintains a parallel debt recording system in a spreadsheet. This system is for regular updates of both disbursements and debt service.

Domestic debt is currently recorded at the Financial Markets Department of the Reserve Bank of Malawi through a Microsoft Excel spreadsheet. It is envisaged - as per the recommended institutional framework - that the recording and monitoring of domestic debt would move to the Resource and Mobilization Section of DAD at the Ministry of Finance, as and when resources permit.

The suggested action plan includes:

- Need for integrated debt recording – use of one system i.e. CS-DRMS.
- Need to develop a shared network link between the Ministry of Finance and RBM.
- Effective monitoring of new loans is essential and timely recording of such loans would make it easy for the institution to track disbursement information.
- Recruitment and training of staff is important to close the gap and ensure that the backlog of disbursements is eliminated.
- Internal verification systems should be used to ensure the provision of accurate payment instructions.
- Good internal control systems should be developed to automatically identify discrepancies in loan transactions.
- RBM should be responsible for recording and up-dating actual debt service transactions in CS-DRMS.
- Ministry to recruit staff to operationalise the domestic debt section
- Provide adequate training in the recording of domestic debt in CS-DRMS
- RBM to second relevant staff to DAD.

## **1. Procedures for registration of external loans – Government and Parastatals**

### **Sound practice requirements:**

An integrated computerized debt recording system is required – one which can provide for necessary and consistent links between various aspects of the loan cycle, e.g. loan registration, disbursements, debt service. The system should be managed and run by one institution and network links can be set up for other institutions within the system to access for analytical purposes. The recording or registration of loans should be timely; ideally this should be immediately after loan signature.

### **Description of current situation:**

The Debt and Aid Department (DAD) in the Ministry of Finance uses a computerized debt recording system (CS-DRMS) to record government and parastatal external debt. Reserve Bank of Malawi's debt section runs two debt recording systems, one in CS-DRMS and the other in Microsoft Excel. The Bank gets periodic back-ups of the CS-DRMS debt database from DAD, and is responsible for daily updates on CS-DRMS. RBM's parallel spreadsheet system only updates actual transactions such as disbursements and repayments. In addition, the Ministry runs another claims management system in Microsoft Access developed within to capture disbursements.

In recording new loans, signed loan agreements are received from the Resource and Mobilization Section of the Ministry of Finance. In most cases, these agreements are not sent in a timely manner and this affects the timely registration of loans into the system.

Together, DAD and RBM, have four systems of recording external debt.

### **Relevance of sound practice to country situation & desirable requirements in country situation:**

A single integrated debt recording system is necessary to avoid mistakes and oversights.

### **Gaps between desirable requirements and current situation:**

The two institutions, the Ministry of Finance and Reserve Bank of Malawi, already run the same regionally recommended CS-DRMS system for recording all forms of debt. However, the dual recording and registration of loan data by the two institutions in parallel systems results in duplication of efforts. There are also delays in the registration of new loans because relevant documentation from the Resource Mobilization Section is not submitted in time.

### **Action Plan:**

- Need for integrated debt recording – use of one system i.e. CS-DRMS.
- Need to develop a shared network link between the Ministry of Finance and RBM – so that there can be sharing of updating tasks depending on who has quick access to particular information. e.g. Ministry can concentrate on registration of loans and updating of disbursements, while RBM becomes responsible for updating debt service since they would have first hand information on payments made.
- Sections within Debt and Aid Management Department in the Ministry should be well coordinated and have standing instructions that ensure the timely provision of relevant documentation to other sections.



## **2. Procedures for monitoring and recording loan disbursements – Govt & Parastatals**

### **Sound practice requirements:**

The ideal criterion requires compliance with donor conditionalities and a clear system of presenting applications to lenders. Systems developed to monitor disbursement information need to be integrated into a debt database which meets international standards, such as CS-DRMS.

### **Description of current situation:**

Malawi manages to meet conditions prior to effecting disbursements and has a defined system of making claims. The Ministry of Finance has developed their own system in Microsoft Access – called a claims management system for the purpose of recording and monitoring disbursements for project implementation by various Ministerial beneficiaries. The claims management system basically operates as an internal monitoring and control measure. Disbursement information recorded in this system is later duplicated in CS-DRMS because there is no direct link between the two systems. In most cases, because of staff shortages, DAD is not up-to-date in the recording of disbursements.

### **Relevance of sound practice to country situation & desirable requirements in country situation:**

Accurate monitoring and recording of disbursements through an integrated system is relevant to Malawi to reduce errors and duplication.

### **Gaps between desirable requirements and current situation:**

The claims management system should be linked to CS-DRMS. Since the claims management system is not compatible with CS-DRMS, the Ministry does the recording of disbursements twice, compromising accurate data entry and wasting resources. There is need to establish a link between the two systems. However, the current version of CS-DRMS 7.1 is not compatible with the Ministry's Microsoft Access based claims management system.

### **Action Plan:**

- CS-DRMS 2000 is being developed and the Ministry should work towards developing a direct link between the two systems. Such a development should save both human and financial resources for the Ministry.
- Effective monitoring of new loans is essential and timely recording of such loans would make it easy for the institution to track disbursement information.
- Recruitment and training of staff is important to close the gap and ensure that the backlog of disbursements is eliminated.

### **3. Procedures for debt service payments – Government and Parastatals**

#### **Sound practice requirements:**

The institution should have systems or procedures that result in accurate and timely debt servicing. The system should also facilitate the tracking of payments to establish and analyze unwarranted discrepancies. Arrears and penalties should effectively be monitored. Payment of debt obligations should not rely on instructions from lenders.

#### **Description of current situation:**

The Ministry receives bills for payments from Donors prior to due date. A payment instruction is prepared in triplicate and a duplicate forwarded to the RBM's Research and Statistics Department for confirmation. After confirmation, the Department also forwards the payment instruction to the International Operations of the Bank to effect payment. A copy confirming that payment has been made is sent back to the Ministry for purposes of updating actual transactions in CS-DRMS. In most cases, there are delays in registering actual transactions within the Ministry, and RBM has to update their spreadsheet format, since they retain a copy of the same at the Bank.

In cases where there are no bills for payment, the Ministry sends payment instruction based on repayment schedules as per original loan agreements. In other words, payments have to be estimated.

#### **Relevance of best practice to country situation & desirable requirements in country situation:**

Best practice requirements are relevant in Malawi to avoid the costs incurred by faulty debt servicing.

#### **Gaps between desirable requirements and current situation:**

There is already a well-defined institutional set-up for debt servicing. However, systems used to generate payments on loans lack internal verification or validation methods. Discrepancies arise on both billed and non-billed payments against scheduled debt service. This results in duplication of payments or accumulation of unintended arrears.

#### **Action Plan:**

- Internal verification systems should be used to ensure the provision of accurate payment instructions.
- Good internal control systems should be developed to automatically identify discrepancies in loan transactions.
- RBM should be responsible for recording or updating actual debt service transactions in CS-DRMS.



#### **4. Procedures for recording domestic debt**

##### **Sound practice requirements:**

To have a complete and accurate record of domestic debt in electronic form. The record should be comprehensive and consistent and provide a realistic framework for analysis and input into the policy formulation process. There should be one system which is complete and authoritative. The MEFMI report on establishing the Debt and Aid Department in the Ministry recommends that recording of domestic debt should be done through this Department using the CS-DRMS system.

##### **Description of current situation:**

Currently domestic debt is managed and recorded by the Reserve Bank of Malawi in spreadsheet format. The Ministry of Finance only receives reports from RBM. The organizational structure for the Debt and Aid Department has a vacant arm for domestic debt.

##### **Relevance of best practice to country situation & desirable requirements in country situation:**

Malawi needs an accurate record of its domestic debt and its market is sufficiently developed that an electronic recording system is relevant.

##### **Gaps between desirable requirements and current situation:**

There is already a database on domestic debt. What is important is to establish whether the format in the spreadsheet is appropriate or compatible to CS-DRMS requirements. The Ministry needs additional staff to operationalize the domestic debt section

The spreadsheet format does not have the analytical or management tools available in CS-DRMS. It has been agreed between DAD and RBM that RBM could second staff to DAD for a period of at least two years to establish the domestic debt section in the Ministry. This, however, requires that the Ministry employ the relevant people for that section.

##### **Action Plan:**

- Ministry to recruit staff to operationalise the domestic debt section
- Provide adequate training in the recording of domestic debt in CS-DRMS
- RBM to second relevant staff to DAD.

#### **5. Data Validation**

##### **Sound practice requirements:**

To maintain a high quality debt database, both domestic and external, there is need for periodic data validation. Validation can be done by using internal checks within the system or through reconciliation of debt records with creditors. This provides for an accurate and consistent debt database – a pre-requisite for a credible Debt Sustainability Analysis (DSA) exercise.

**Description of current situation:**

The Malawi Government has just completed its DSA exercise and prior to this exercise a data validation exercise was undertaken both within the internal systems and records, and also through reconciliation with external creditors. The validation and updating of transactions is not regular because of shortage of staff in the Ministry.

In carrying out the debt sustainability exercise, CS-DRMS and DSM plus were used while Macroeconomic scenarios were developed independently and input to DSM plus.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

Malawi needs an accurate database on its debt as much as any other country, so validation is relevant to Malawi.

**Gaps between desirable requirements and current situation:**

While validation has been done to levels of sound practice, the Ministry should extend the use of internal system checks to repayments, to track discrepancies that arise.

Shortage of staff has affected the timely updating of transactions and regular validation of debt statistics.

**Action Plan:**

- While there is a link between CS-DRMS and DSM plus, there is need to develop links with Macroeconomic models.
- Validation and updating of debt data should be regular.

## **6. Staff Recruitment and Training**

**Sound practice requirements:**

To have well trained, qualified, experienced and motivated staff in a work environment capable of retaining them.

**Description of current situation:**

The Ministry and RBM debt officials are not receiving adequate training in the use of CS-DRMS. There is absolutely no training received by incumbent officials in the recording of domestic debt. The Ministry of Finance's Debt and Aid Department is currently understaffed and cannot operationalize the domestic debt section. Incumbent staff cannot use the analytical and management tools in CS-DRMS.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

Sound practice is relevant as debt management cannot be implemented without adequate staffing.

**Gaps between desirable requirements and current situation:**

Malawi already has recording systems that meet regional standards, especially CS-DRMS. With well-trained and motivated staff, there is potential for increasing capacity and performance. Both in the Ministry of Finance and RBM there are well-defined organizational structures for debt recording. DAD, according to an approved structure needs to recruit about 30 people in order to have the full operational complement, while RBM debt section needs one economist.

Shortage of staff and inadequate skill development adversely affect the efficient and timely recording and monitoring of debt. The few members of staff working in the debt institutions are not fully trained and staff turnover in most cases results in stoppage of work.

**Action Plan:**

- To recruit the full complement of staff both in DAD and RBM.
- To train new staff fully in loan interpretation and recording in CS-DRMS
- To train staff in the use of other analytical and management tools in CS-DRMS
- To train staff in domestic debt recording in CS-DRMS
- To develop a procedures manual to ensure continuity in the event of staff turnover.

# SOVEREIGN CASH MANAGEMENT

## Objectives

Government cash management has two main objectives. The first objective is to support the requirement for budget discipline within government. By placing a greater emphasis on the need for every government department to better forecast its expenditure the process helps to ensure that departments better understand their own business. Cash management thereby helps ensure that the actual expenditures are in accordance with the budget provisions.

The second objective is to help improve the management of the government's domestic borrowing program. Good cash management lowers the level of government borrowing by reducing idle cash balances and avoids a risk premium being priced into the level of interest rates on government borrowing to compensate for volatility in banks' settlement balances (which can be caused by bad cash management).

The term cash management as used in the context of a government's budget and debt management is the process by which the government forecasts its cash inflows and outflows. Initially this is on a monthly basis, but the process is refined to forecast the cash flows on a weekly and then a daily basis. Sound practice in developed markets requires that the government's cash flows be accurately forecast and managed on a daily basis.

Cash management requires accurate cash forecasting by all government departments and the timely reporting of the forecasts to the central managing agency. The central agency collates the individual forecasts, ensures that updates or other changes from previous forecasts are incorporated in a revised forecast, and produces an updated summary indicating the overall net government inflow or outflow to the banking system. This information is then used by the debt managers to establish the government's domestic Borrowing requirement.

To be effective cash management requires a regular process of monitoring the expected payments and receipts, and the forecasts need to be continually updated to reflect the latest information. The effectiveness of the cash management process depends very much on obtaining reliable forecasts. It is dependent on there being sufficient resources of skilled and motivated staff in both the central managing agency and in the other departments or ministries to prepare reliable forecasts.

An accurate and timely system of forecasts will not be achieved without proper resourcing, staffing and training. Developing good cash management needs to be carefully thought out and well managed for it to be a success. It requires a positive attitude from all government and central bank officials involved. High level leadership and commitment from the Minister of Finance and key senior executives is also necessary.

## Cash Management Responsibilities

1. Procedures for monitoring expenditure relative to budget.
2. Procedures for approval of expenditure.
3. Procedures for sanction of excess or unauthorized expenditure.
4. Dedicated and motivated cash management staff.
5. Clear reporting and accountability.
6. Adequate incentives for Government departments to take cash management seriously.
7. Information and systems to forecast cash flows.
8. Appropriate banking arrangements.
9. Flexible arrangements for managing the Government's short term borrowing needs.

## Summary of current situation and main actions required

### Current situation:

The current emphasis of fiscal management in Malawi is on an expenditure control system that is intended to be a system for controlling excess or unauthorized expenditure, thereby ensuring overall expenditure is within the total budget allocation. It is not a cash management forecasting system that is designed to give advance notice of the cash flows for each day. The existing system is also designed to provide the Officials with the amount of borrowing that is needed in the bi-weekly Treasury bill auctions.

The major shortcoming is the lack of a cash management system. It is recommended that once the introductory stage of the new Credit Ceiling Payment System has passed and Officials are confident it is working well, work should commence on designing a cash management and forecasting system.

### Main actions required:

1. To provide support for budget discipline within government.
2. To improve the management of the domestic borrowing program and reduce the government's cost of borrowing.
3. Develop a reliable cash forecasting system. For Malawi it is recommended that this be a weekly cash forecast system for the next three months on a rolling basis.

## 1. Procedures for monitoring expenditure relative to budget.

### Sound practice requirements:

The expenditure allocations for all government departments should be established at the beginning of each financial year. Each department or ministry should translate the annual appropriation into a monthly forecast of their activities and prepare cash forecasts based on the expected timing of their various activities.

A large part of the expenditure such as salaries or pension/benefit payments should be known at the beginning of the year for the full year ahead. Other expenditures are timed to occur when triggered by the activity they are related to. These activities should be in the work plan for each department for the coming year.

Actual expenditure is then monitored monthly and weekly against the forecasts.

It is normal practice to have rules that govern the monitoring of actual expenditure against the budget provision. These rules would usually be as follows:

- \* All expenditure should be in accordance with each department's annual budget approval. This applies to both the aggregate amounts of expenditure as well as the individual activity and/or line items.
- \* Where approved amounts are not sufficient, and additional expenditure is desired, the prior approval of the Minister of Finance or the Cabinet is required before any additional expenditure is committed.
- \* The responsibility for monitoring expenditure to ensure it is kept within the budget is the responsibility of the department Chief Executive.

**Description of current situation:**

Officials in Malawi have for some time been struggling to control government expenditure to ensure it is kept within the approved levels. There have been various measures to control unauthorised or excess expenditure in the past but they have not been fully effective. The previous system involved pre-funding the banks and allowing them to bounce cheques if there were insufficient funds in the account to meet a payment. This system however resulted in excess liquidity in the banks, and required the government to borrow back the excess liquidity. This system was abandoned because it was very costly for the government. Hence the development of the new system of the Credit Ceiling Payment approach.

Under the new Credit Ceiling system line ministries are advised how much they can spend in the coming months. The amount depends on their overall expenditure approval for the year and their work plan, but it also depends on how much revenue has been collected in the previous month, and on the expected payments from donors under the various aid programmes. The general fiscal guideline in Malawi is that “you cannot spend money you do not have”.

Expenditure is authorised on the basis that the “expected” donor payment is actually received by the government at the time it was forecast. This means that if the donor payment is not in fact received at the forecast time, (usually due to misunderstandings about whether conditionalities have been met), and the expenditure has been committed, there is an automatic shortfall, which requires a greater amount of borrowing in the domestic market.

**The Problems of Monitoring Expenditure:**

- \* Over expenditures of individual items have occurred in the past. This has frequently been because Ministers undertake activities that have not been provided for in the budget. This is why a new system of control has been developed.
- \* The annual expenditure allocated to a department may have to be reduced during the year to compensate for or offset the over-expenditures in other parts of the budget, or because of the delayed receipt of forecast payments from donors.
- \* Ministers or senior executives sometimes agree to items of additional or unauthorised expenditure when the necessary funds have not been allocated.
- \* Responsibility for monitoring additional or unauthorised expenditure is difficult for the department staff as a more senior ranking person has given the approval for the additional expenditure.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

The monitoring process used in sound practice countries is relevant and should be applied in Malawi.

**Gaps between desirable requirements and current situation:**

The gap in monitoring between sound practice and the current situation appears to be significant. The main gaps are:

- \* The annual budget allocation to a department or ministry is not sufficiently firm to allow the department to have full confidence in being able to commit to a timetable of its work activities during the coming year.
- \* There needs to be a monthly and weekly forecast of each departments planned expenditures that reflects its work plan for the year.
- \* Departments need a month by month comparison of their actual expenditure against their budget allocation.
- \* Where the budget allocation is likely to be insufficient for the actual expenditure a review process is required in advance to either reduce the planned spending or obtain a prior approval to get the necessary

authority for additional expenditure.

\* Ministers and Chief Executives must accept that expenditure has to be kept within the amount of the existing approval for various activities and items.

**Action plan:**

1. Review and amend the authority of Executive Ministers so that expenditure can only be incurred or committed once there already exists approval for the expenditure and the necessary funds have been allocated to the correct budget item in the department's budget.
2. Make the departmental Chief Executive responsible for monitoring and controlling expenditure in his department. This should be a formal requirement in the chief executives job description and must be recognized and respected by Ministers.
3. Establish a system of monthly reporting to the President and the Cabinet of all departmental year to date actual expenditures against the year to date budget allocations. Any budget variances need to be highlighted and satisfactorily explained to the Cabinet.

## **2. Procedures for approval of expenditure.**

**Sound practice requirements:**

All expenditure should require prior approval before it is incurred and the required funds must have already been allocated to the relevant activity in the department's annual budget.

Where additional expenditure is desired or required, prior approval from the Cabinet or the Minister of Finance should be required before any commitments can be entered into.

**Description of current situation:**

Currently in Malawi, Ministers have the executive authority to commit to spending and at times do so even when there is not a sufficient allocation for the particular item. This leads to unauthorised and over-expenditure which later requires cutbacks in other areas of spending to compensate or additional government borrowing. This practice is a breakdown of the standard procedures required to control expenditure.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

The principals of sound practice procedures for the approval of expenditure are relevant and desirable and should therefore be adopted in Malawi.

**Gaps between desirable requirements and current situation:**

The gap between sound practice and the current situation is very significant and this is an issue of concern. A major reason why the government cannot fulfill other existing programmes and commitments is because the funds have been used for another purpose. Over-expenditure requires additional government borrowing to finance it, and this is very costly for the government.

This problem is caused by a combination of past bad habits and a lack of fiscal discipline by Ministers. The design of the current control system does not adequately restrain spending. It must be made mandatory in practice to have the formal approval for expenditure prior to making a commitment.

**Action plan:**

1. The Minister of Finance and the Secretary to the Treasury need to reinforce the importance of first getting the required approvals before commitments are entered into.
2. The formal rules which govern who can approve additional expenditure need to be reviewed and amended so that there is more control over expenditure, and that it is kept within the budgeted amount.
3. The firm backing of the President is needed to ensure that the requirement for proper approvals is accepted by all Ministers.

**3. Procedures for sanction of excess or unauthorized expenditure.**

**Sound practice requirements:**

Unauthorised expenditure will result in action being taken against the person responsible for the decision to spend without the required authority.

This could involve a demotion to a lower grade of the individual responsible for the decision or dismissal from office in serious cases.

**Description of current situation:**

Officials in Malawi have considered imposing sanctions, but thought these would not be workable. This was especially so when the unauthorised expenditure has been made by a Minister who has executive authority, and can thereby instruct the Chief Executive or other officials to spend on items for which there is not sufficient funds allocated. The Officials are obliged to fulfill the Minister's instructions.

**Relevance of best practice to country situation & desirable requirements in country situation:**

The procedures for best practice sanction would be helpful and should be relevant in Malawi if they could be adopted in practice. The role of Executive Ministers in the expenditure process, however, makes it very difficult to control expenditure in the way best practice requires.

**Gaps between desirable requirements and current situation:**

Ministers make spending commitments for which there is no budget allocation creating a very significant gap between the existing situation and sound practice.

**Action plan:**

1. The Minister of Finance and the President need to be involved in the discussion and decision as to how sanctions can be developed and implemented in Malawi.
2. As sanctions need to be applied against both Ministers and senior executives the plan needs a commitment from and approval by the Cabinet to be effective.



#### **4. Dedicated and motivated cash management staff.**

**Sound practice requirements:**

It is expected that the staff in both the central cash management unit and in the various departments are dedicated to their responsibilities and are strongly motivated to provide accurate and timely forecasts of their cash flows.

**Description of current situation:**

Staff have yet to be appointed to the cash management function in Malawi.

**Relevance of best practice to country situation & desirable requirements in country situation:**

The expectations of the best practice staff dedication and motivation should apply in Malawi when the project is undertaken.

**Gaps between desirable requirements and current situation:**

The cash management function has not yet been developed.

**Action plan:**

1. When planning for the introduction of the cash management system attention needs to be given to the staff appointments within the central unit to ensure that those appointed will be known as diligent staff members who can be relied upon to be dedicated to this task.
2. A training programme is required for the accounting and forecasting staff in line ministries to ensure that they understand and accept the importance of cash management work. The accuracy and reliability of the forecasts depends heavily on the dedication and motivation of the relevant staff in the line ministries.
3. Because the quality of the forecasts will depend on retaining experienced staff in both the central coordinating unit, and also in the line ministries, personnel planning should include measures to assist the retention of experienced staff.

#### **5. Clear reporting and accountability.**

**Sound practice requirements:**

Individual units within a Ministry or Department should know what their budget is for the year and how it provides the necessary funding for their work programmes. The staff responsible for individual tasks should also know their budgets. During the year they need to know how much has been spent to date, and committed against their budget.

The timely reporting of expenditure is needed to manage the level of commitments against the budget to ensure spending is kept within limits at the task level. Monthly reports of spending to date are essential.

The individual unit expenditures within a department need to be collated and reported to a Chief Accountant and the Chief Executive for monitoring and review on a monthly basis.

The reporting of actual expenditure should be timely, accurate and clear. The Chief Executive is ultimately responsible for the level of actual expenditure to the departmental budgets.

**Description of current situation:**

The Chief Executive is accountable in theory, but in practice this is difficult when Executive Ministers can decide how to spend monies even when there is not a sufficient budget provision for a particular item.

If ministers agree to additional commitments for which there is no budget provision this leads to a breakdown in the accountability of the Chief Executive of a department.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

The sound practice approach is relevant and desirable for Malawi. It cannot be adopted at present due to the fact that Executive Ministers have the authority to approve or instruct departments to spend even when funds have not been allocated for an activity.

**Gaps between desirable requirements and current situation:**

The desire and practice of Ministers to make spending commitments where there are insufficient budget provisions is a significant gap.

**Action plan:**

1. A system of clear reporting and accountability is needed. Ministers themselves must be made responsible, or the Cabinet must agree that the Chief Executive is the senior person accountable for expenditures, and this change has to be accepted by Ministers.
2. If the existing budget allocation is insufficient for planned or desired spending, there needs to be a formal process of seeking prior approval for additional funding before any commitment is made by the Minister or Chief Executive.
3. A system of monthly reporting of year to date actual expenditure against year to date budget is required for each department.

**6. Adequate incentives for Government departments to take cash management seriously.**

**Sound practice requirements:**

All departments are expected to take their cash management responsibility seriously and provide accurate and timely forecasts. There is a managerial expectation that the forecasts will be reliable and that they will incorporate the latest known information on the department's cash flows.

Good internal communications within each department are required to provide the basis for high quality forecasts.

The annual staff evaluation process will include an assessment of the quality of each employee's

performance in undertaking this task.

**Description of current situation:**

The cash management function has not yet commenced in Malawi.

**Relevance of best practice to country situation & desirable requirements in country situation:**

Incentives for the relevant staff in all departments to take their cash management responsibility seriously are not yet relevant in Malawi as there is as yet no cash management system.

Adequate incentives will become relevant when the cash management system is introduced.

**Gaps between desirable requirements and current situation:**

The cash management function has not been implemented in Malawi.

**Action plan:**

1. The implementation planning for the introduction of the cash management system should consider how to motivate the various departments and their relevant staff to take cash management seriously.
2. The quality of cash management should be one of the factors on which staff are evaluated in their annual performance review.
3. Ultimately the responsibility for accuracy in the forecasts should be with the Chief Executive of each department.

## **7. Information and systems to forecast cash flows.**

**Sound practice requirements:**

A cash forecasting system should provide reliable daily cash flow forecasts for the next three months, together with additional forecasts beyond the three month period for items that can be reliably forecast to occur during the balance of the year. This information is updated weekly, or more regularly in the case of large individual items which require revision. The forecasts are accurate and revisions are made immediately as new cash flows are known. The forecasting of cash inflows or revenue items is equally as important in the forecasting system as cash outflows or expenditure items.

Initially, historical data can be examined to identify regular expenditure and revenue items and this can form the foundation of the forecasting framework.

Subsequently, the cash management framework will provide the basis for more pro-active and accurate forecasts.

Frequent monitoring of cash flows is necessary to up-date forecasts. Whatever the structure of the government's banking arrangements between the central bank and commercial banks, bank statements and cash balances should be provided to the government departments and the ministry of finance on a daily basis if required, and can be used by each department to fine-tune their forecasts.

Over-concentration of expenditure or revenue into a few periods can make cash management more

difficult. If the government's expenditure and revenue flows are found to be very lumpy changes to the tax and expenditure cycle should be considered to create a more even pattern of flows over the year.

**Description of current situation:**

In Malawi the responsibility for the control of government expenditure is in the Budget Division of the Ministry of Finance (the MOF). Because of the past difficulties in controlling expenditure and the need to control the fiscal deficit and the consequential domestic borrowing, the government has recently introduced a new system of financial control. This new system is known as the Credit Ceiling Payment System and commenced on 1 June 2000.

The Budget Allocation Committee manages the system of expenditure control and the cash allocations. The committee comprises representatives of the Budget Division of the MOF and the Internal Finance Department of the Reserve Bank. The Accountant General Department has also been a member of this committee. The control of government expenditure is supported by the work of the Cash Management Unit (the CMU), which is a unit in the Accountant General Department.

Under the new Credit Ceiling Payment System line ministries are advised how much they can spend in the coming month. The amount depends on their overall expenditure approval for the year and their work plan, but it also depends on how much revenue has been collected in the previous month, and on the expected payments from donors under the various aid programmes. The general fiscal guideline in Malawi is that "you cannot spend money you do not have".

Under the Credit Ceiling Payment System departments' hold their operating bank accounts at one of the commercial banks. The committee then advises each commercial bank how much each department can spend for each item during the month. The system is supported by a system of individual item coding to ensure that the credit balance in the bank account is actually applied to the items it is intended for.

When a department writes a cheque on the commercial bank account, and after it has been presented for payment at the bank, the bank then applies to the Reserve Bank where holding accounts for government departments are kept for the reimbursement process. Reimbursement is on a daily basis, although there is a three to five day delay in making the reimbursement. When the department has fully spent the amount credited to its bank account the bank will no longer honour the cheques. The commercial bank accounts are therefore an integral part of the expenditure control process, as they have a biweekly limit on the amount that each department can actually spend for individual items. This is how the term "you cannot spend money you do not have" is enforced.

This procedure is designed to avoid the difficulty of the Reserve Bank itself having to dishonour a government cheque. It is also designed to ensure that only the departments net expenditure needs to be borrowed in the market. There is a provision for unspent monies to be transferred to other accounts for other purposes, but this needs to be applied for and approved.

The secretariat for the committee is within the Budget Department of the MOF. The Internal Finance Department of the Reserve Bank provides much of the information on the current balances in bank accounts, which together with the submissions to the budget office by line ministries provides the data for the profile of expected expenditure.

The monthly decisions on how much can be spent by each department, together with the receipts and donor payments, determine how much the government needs to borrow each month. This amount is then translated into the amount required for the bi-weekly Treasury bill borrowing.

Expenditure is, however, authorised on the basis that the "expected" donor payment is actually received by the government at the time it was forecast. This means that if the donor payment is not in fact received at the forecast time (usually due to misunderstandings about whether conditionalities have been met) and the expenditure has been committed, there is an automatic shortfall, which requires a greater amount of Borrowing in the domestic market.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

The sound practice approach to forecasting cash flows is relevant and highly desirable, although a lesser degree of precision would be acceptable in Malawi.

**Gaps between desirable requirements and current situation:**

There is a very significant gap between the sound practice requirement and the current situation. There is no reliable system that can be used to forecast the cash flows on a weekly or daily basis. Consequently, there are substantial variations from the forecasts especially with respect to receipts under the donor programs.

The MOF has recently introduced a new Credit Ceiling system of cash management and this is the basis for the current borrowing calculation. This is a two weekly system, and as it is new it is too soon to know how well it will work. This system is designed, however, to control the level of expenditure and it does not necessarily provide for more accurate forecasting of the cash flows, especially the expected receipts from donor programs.

Uncertainty in the donor programs significantly frustrates the planning of government expenditure. The main cause of the uncertainty seems to be whether the terms of the conditionality have been fulfilled or not. This item is the biggest variable in the government's cash flows.

Officials have recently sought to improve the reliability of the timing of payments from donors. However there still remain problems in respect of project financing for which the Ministry of Finance is not the principle borrower. Other departments have donor-financed projects where it is difficult for the Ministry of Finance to confirm that all the terms and conditions have been met. Therefore, the timing of the donor's payment to the department or Ministry is unclear.

**Action plan:**

1. Once the MOF and other departments have had time to adjust to the workings of the new Credit Ceiling approach, and they are satisfied with how it operates, they should commence work on improving cash management. The MOF should think of cash management as a "project" that needs to be carefully thought out, having adequate staff resources, and training for key staff so that they understand the importance of this project. The Secretary to the Treasury and the Minister of Finance should be advised of the importance of cash management so officials can obtain their leadership and authority for the project.
2. Work should begin on establishing the historical patterns of revenue and expenditure and identifying large items that require monitoring.
3. There is a strong case for a review of the problems of forecasting the donor receipts and the management of the commitment and payments process. Particular attention needs to be given to what has been agreed in the terms of conditionality of each program before a realistic assessment of whether the funding will be released can be made. This must include attention to how the terms are written, how easily terms can be satisfied in practice, and what proofs the donors require before they agree that the terms have been satisfied
4. Attention should be given to the terms of conditionality that are agreed when officials are negotiating new donor programs. This is needed to ensure that a clear assessment is made at the negotiating stage of a programme as to how easily it will be in practice to satisfy the terms of conditionality.
5. The communication process between the donors and the various departments must be improved so that

the departments have a better knowledge of what the donors are planning as to when the payments will actually be made. The importance of the cash management system should be explained to the donors at the operating level to encourage their own attention to the need for reliable forecasting in respect of these payments.

## **8. Appropriate banking arrangements.**

### **Sound practice requirements:**

The objective of the banking arrangements should be to:

- \* Provide daily bank statements which advise what receipts and payments have been lodged for each department, and each sub-department, of the Ministry, where relevant.
- \* Ensure that each reporting sub-unit of a Ministry can assess the level of its unrepresented cheques together with its known commitments. These must be incorporated with the information in the most recent bank statement.
- \* Ensure that there are no idle cash balances in the bank accounts utilized by the various departments.

### **Description of current situation:**

As there is no forward cash management and forecasting system within departments there is not much importance attached to making a comparison between the actual outcome and the budget provision to improve and update the forecasts.

Reconciliation's between a department's cashbook and its bank statement are made by the Accountant Generals office, but this process is a bank statement reconciliation process, and is not a forward cash forecasting process.

Without prompt receipt of all bank statements by individual departments it is not possible for departments to know their current balances and what items have been cleared on a daily basis, and update their cash forecasts.

Under the new Credit Ceiling Payment system idle bank balances have been eliminated by ensuring that all funds remain at the Reserve Bank until departments' cheques have actually been presented for payment at a commercial bank. This is a major improvement to the management of cash and a practical constraint on government borrowing in Malawi.

### **Relevance of sound practice to country situation & desirable requirements in country situation:**

Although the sound practice arrangements are an ideal they are not possible or necessary at present in Malawi. The best practice is not possible because the commercial banks are not providing daily bank statements for all departments or reporting units. In addition, the Reserve Bank is managing its liquidity and banking reserves on a monthly target basis and therefore this level of precision has not been necessary for the Reserve Bank. The Reserve Bank's planned move to weekly Treasury bill borrowings, however, requires a more accurate assessment of each departments cash position on a weekly basis.

Prompt bank reconciliations by individual departments and their use to update the departments own cash forecast would be a desirable development for Malawi.

### **Gaps between desirable requirements and current situation:**

This gap is significant. An up-to-date forecasting system requires that each reporting department know its

current bank balances and its outstanding/unpresented items position before it can forecast its future cash flows.

Ideally a department or sub-unit within a department should be able to receive a bank statement daily advising what has been presented as at the previous days close of business.

The department must then have staff who monitor what has been presented against the budget forecast. The departments cash forecast should then be updated to reflect all the cash flows to date.

**Action plan:**

1. Measures to improve the timeliness of obtaining bank balances and bank statements need to be incorporated in the cash management project.
2. Discussions should be held with the banks to improve the timeliness of their reporting arrangements to client departments.

**9. Flexible arrangements for managing Government's short term borrowing needs & the Central Bank's liquidity management needs.**

**Sound practice requirements:**

The government should have access to a regular Treasury bill program which involves a regular amount of borrowing for established maturities each week. The government should also be able to borrow or lend (on a secured basis) additional amounts in the money market on any one day. The central bank should be able to intervene on a daily basis to manage system liquidity for monetary policy purposes. The government borrowing is undertaken with short dated Treasury bills, often referred to as cash management bills. The central bank's interventions can be undertaken using either purchase and sale transactions or repurchase agreements.

**Description of current situation:**

The government currently borrows once every two weeks. The Reserve Bank is planning to move from a biweekly Treasury bill auction schedule to a weekly schedule. This change will be introduced when the bank has completed the internal requirements for the change over from the issuance of paper, or physical securities, to a new book entry system using an electronic registry. This change should be completed in the next few months.

The change to weekly domestic tenders is a desirable development in the governments borrowing capacity. Together with an improved cash management system it will allow the government to better match its borrowing requirements with its spending needs.

Weekly auctions should also improve the competitiveness of the auction process by reducing the volume of funding that is required in each auction. The government's interest costs should also be reduced by better matching the borrowing with the MOF's requirements for one week rather than for a two-week period.

Weekly auctions will allow the Reserve Bank to better control the level of liquidity in the banking system.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

The sound practice approach of being able to match the government's funding needs on a more exact basis in relation to the time for which funds are required and for the central bank to be able to control system

liquidity on a daily basis is not needed or possible in Malawi at the present time. The Reserve Bank is managing reserves on a monthly target basis and not on a daily basis. It is not possible to borrow on a daily basis under current registry arrangements. There is no forecasting system at present that can provide a daily borrowing requirement or accurate daily estimates of liquidity management requirements.

**Gaps between desirable requirements and current situation:**

To close the gap the MOF needs to implement a cash management system which forecasts the daily borrowing requirement and the Reserve Bank would have to introduce the book-entry Registry system and also change its reserves management policy.

**Action plan:**

1. Introduce a weekly Treasury bill auction schedule as currently planned.
2. At a later date when better information is available on the government's net expenditure on a daily basis be able to undertake Treasury bill borrowing and central bank open market operations on a daily basis if that was necessary.



## **Domestic Debt Market Development**

### **Objectives**

Developing a domestic debt market has two broad objectives:

- \* To give government maximum flexibility in achieving its desired cost/risk trade off by being able to sell domestic debt in the desired quantities across a wide range of maturities.
- \* To enable government to finance itself domestically at the lowest cost that is consistent with a deregulated market and monetary policy.

The discussion of developing the debt market follows the headings below:

1. Level of macroeconomic risk
2. Moderate issuance needs relative to size of economy and market.
3. Variety of different types of buyers with different maturity needs.
4. Competitive primary market.
5. Technical matching of quantity offered with market's ability to absorb.
6. Debt instruments suited to market demand.
7. Adequate notice of sovereign issuance plans.
8. Homogeneous issues to assist liquidity and derivatives.
9. Safe and timely title registration and transfer.
10. Safe and timely ability to transfer funds to purchase debt instruments.
11. Secondary trading 1: Competitive pressure on term savings institutions to stimulate trading to manage risks and improve portfolio return.
12. Secondary trading 2: Central Bank operating procedures which provide an incentive to actively manage liquidity and interest rate risk.
  - \* Accommodation policy
  - \* Reserve compliance period
  - \* Accuracy of liquidity management to assist auction settlement and reduce volatility in short term rates.

### **Summary of current situation and main actions required**

#### **Current situation:**

The government is financing itself domestically with treasury bills of 91, 182 and 271 days maturity. The level of macro risk is high (particularly inflation risk) and this shortens the maturities the government can sell.

The primary market for government debt is a market-based auction system. Auctions are held every two weeks and announced to the market in advance. Auction results are reported to the market in detail, creating a good degree of transparency.

Market participants are generally satisfied with the efficiency of the auctions. They also generally have few problems with the issue of treasury bills in certificate form, although this will become an inhibiting factor as the market develops further.

The inter-bank market is not very liquid and the overnight rate is set in an habitual manner by the participants and based on the cost of funds. There is little secondary trading in treasury bills. This illiquidity is mostly caused by large surpluses or deficits of domestic reserve money which cause the banks to all have either a surplus or a deficiency at the same time and this causes the market to be one-way most of the time. The small size of the financial market (reflecting the small size of the economy) also reduces competition and liquidity.

Recent sharp increases in primary market rates, not required by monetary policy, have driven up the cost of funding the deficit significantly and caused some investors to question government commitment to expenditure control and the sustainability of debt financing. These sharp increases were caused by: (i) inadequate capacity in liquidity management due to lack of information on government and other cash flows; (ii) a shallow domestic money market with few large participants; and (iii) inadequate coordination between monetary policy, debt management and, possibly, foreign reserves management.

**Actions:**

***Priorities:***

*Reduce macro risk:* Until macro risk is reduced the maturity of debt sold will remain short and the debt market in Malawi will effectively be constrained to being a money market. The level of macro risk is high, especially inflation risk, and this pushes interest rates up and reduces the maturity of debt. The government needs to take all measures it can to reduce macro risk. It is very important that the government controls expenditure in order to achieve greater coordination between fiscal and monetary policy and to reduce inflation expectations.

Policy signaling also needs to be made clearer. The Reserve Bank needs to establish a clear method by which to signal its monetary policy stance.

*Improve liquidity management and policy coordination:* The major barrier to money market development is inadequate capacity in liquidity management and policy coordination. This has reduced liquidity through creating the conditions for a one-way market. It has also caused occasional extreme swings in the overnight rate. (i) One of the causes of the low level of inter-bank trading and the habitual setting of the inter-bank rate is the one-way nature of the market. This is caused by the large surpluses and shortages of excess reserves that usually exist. Once the Reserve Bank has better forecasts it should become more active in managing the level of system liquidity so as to avoid extreme surpluses or shortages of excess reserves. (ii) Sharp movements in treasury bill rates that are not required for monetary policy cause considerable uncertainty. The sharp jump in interest rates in April/May was due to weak liquidity management and poor coordination between monetary policy, central bank operations, debt management and foreign reserves management. This event was not required for monetary reasons and it increased funding costs and adversely affected investors expectations of government policy.

The Ministry and the Reserve Bank should develop a formal process for agreeing on the quantity of treasury bills to be offered. This process should coordinate the needs of fiscal, monetary and foreign reserves policies.

As a starting point to improve liquidity management and coordination the Reserve Bank and the Ministry could use historical data to obtain a clearer understanding of, and distinction between, the government's domestic financing needs and the central bank's need to manage liquidity. The attached table (Annex 3) can be used to identify and quantify the distinction between financing needs and monetary policy needs.

The Ministry and the Reserve Bank should use an analysis of historical data as a starting point to develop a better method of forecasting transactions that affect reserve money<sup>4</sup>.

The Reserve Bank should analyze the potential cost of using open market operations more actively to smooth liquidity. The Reserve Bank needs to establish whether or not it has the financial capacity to undertake OMOs. If the Reserve Bank's financial capacity to undertake OMOs is in doubt, the Ministry and the Reserve Bank need to establish a method of ensuring that the Reserve Bank acquires the capacity.

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<sup>4</sup> This was also recommended in the Cash Management discussion in section 7, 'Information systems to forecast cash flows'.

*Improve the design of accommodation policy:* The Reserve Bank should research possible alternative designs for an accommodation policy based on the overnight rate rather than the 271 day rate as at present. In a more dynamic market basing the accommodation rate on the 271 day rate would effectively set the short term yield curve from overnight to 271 days and would inhibit market-making.

***Second tier priorities:***

*Establish a large-value clearing facility.* A large-value clearing facility is a system by which transactions above a predetermined size are identified and cleared faster than the bulk of small transactions. Clearing presently takes 3-5 days for all transactions except those between institutions with settlement accounts. The lack of large-value clearing hinders the broadening of the overnight money market to include financial institutions and corporates without settlement accounts. The lack of large value overnight clearing makes liquidity management more difficult for financial institutions with a large proportion of volatile wholesale liabilities and this in turn hinders the development of market making. The Reserve Bank should work with financial institutions to develop a large-value clearing mechanism.

***Third tier issues:***

*Enlarging the investor base:* The Reserve Bank should investigate whether potential investors (defined as those with term deposits) are well enough informed about treasury bills and how to participate in the auction. It should consider how to educate this group about investing in treasury bills.

There may be demand for a 30 day bill which would attract investors who need more liquidity than 91 day bills offer and who currently prefer to use bank deposits. The Reserve Bank should initiate regular contact with investors to establish the types of debt for which there is the most demand. The Reserve Bank should discuss its findings with the Ministry, who should see how market demand matches with the Ministry's risk and cost objectives for debt management.

*Improving investors ability to plan their participation in the auction:* Once the Reserve Bank's ability to forecast system liquidity has progressed sufficiently to be useful to the market (rather than confusing) the Reserve Bank should consider making its forecasts for the coming months public. This would enable financial institutions to better plan their participation in the auctions.

*Improving the ability to transfer ownership of government debt:* Treasury bills are currently in certificate form. Investors usually receive their certificates one week after settlement but on occasion it can take 3-5 weeks. The majority of market participants are not very concerned about this, however once the market has developed more secondary trading the cumbersome nature of paper certificates will be an impediment to market development. The Reserve Bank plans to introduce treasury bills in book-entry form. The Reserve Bank should establish the adequacy of the legal framework for book-entry securities. Eventually the depository for these bills should be integrated with the payments system to achieve DVP.

***Long term issues:***

*Reducing the constraints imposed by a small market:* The market in Malawi is small and this places a structural constraint on developing competition and secondary liquidity. In the longer term the government needs to consider ways in which to reduce the constraint placed on financial sector competition by a small economy. The government could examine ideas for Regional financial markets being discussed in SADC to weigh the benefits to Malawi of such arrangements. The government could also consider permitting domestic term savings institutions some exposure to foreign investments.

## **1. Level of macroeconomic risk**

### **Sound practice:**

Financial markets price risk. The higher the level of macroeconomic risk the higher interest rates will be and the shorter the period of time for which people will invest. It is in the Government's interest to reduce the causes of macroeconomic risk so that these risks do not: (i) push up the interest rates both it and the private sector must pay for funds and: (ii) reduce the period for which funds can be raised.

The major macroeconomic risks that affect interest rates are inflation, the fiscal situation, the consistency and transparency of policy and the diversity of the economic base.

High inflation leads to high interest rates as lenders act to preserve the real value of their capital. It is not just the level of inflation which is important. The credibility of the Government's policy to restrain inflation is also important as it affects expectations about future inflation levels. Expectations of future inflation affect interest rates today as lenders want to protect the real value of their capital over the term of the loan. Uncertainty about future levels of inflation reduces the period for which people are prepared to invest.

The fiscal situation should not result in an excessive government borrowing requirement which drives interest rates up and squeezes out private borrowers. If the government's borrowing needs are too large relative to investor demand, investors will require higher interest rates before they will buy the government's debt. At the extreme investors may question the government's ability to service its debt, causing the government to have difficulty selling its debt and having to pay very high rates on what it can sell.

Consistent and transparent policy making by government creates greater certainty and permits the private sector to plan further in advance. Greater certainty about future policy lengthens the period over which investors are prepared to place their funds and creates an environment in which investors will accept lower interest rates.

A diversified economic base reduces the probability that the economy will be subject to supply or demand shocks large enough to dislocate economic activity or cause large and sudden changes in inflation. Narrowly based economies are more subject to these shocks and this may lead to higher average interest rates and shorter average loan periods.

### **Description of current situation:**

Annual inflation in Malawi grew from around 18% at the start of 1998 to 55% at the start of 1999. It then declined to 28% at the end of 1999 and is expected to be around 24% by the end of 2000. The large surge in inflation was driven by a significant depreciation (100%) of the kwacha over 1998.

The fiscal deficit over 1997/99 averaged -8.6% of GDP before grants and -3.8% after grants.

Monetary policy is not clear to the market. Market participants complained of the lack of clear signals from the authorities. The lack of clarity has two sources (i) the market cannot see a clear link between the recent volatile shifts in treasury bill rates and the economy or monetary policy; (ii) monetary and fiscal policy are not adequately coordinated; monetary policy is tight but government expenditure is seen to be expansionary.

Malawi's economy is relatively narrowly based. Agriculture accounts for around 80% of exports and around three quarters of agricultural export receipts come from tobacco.

### **Relevance of sound practice to country situation & desirable requirements in country situation:**

Sound practice is very relevant to Malawi. The high level of risk is reflected in both high real interest rates

(reaching in excess of 40% in May 2000) and short loan maturities (the longest and most common maturity of government debt is 271 days).

With a narrowly based economy that is subject to a greater than average risk of supply or demand shocks, it is even more important for the government to reduce those risks that are within its control, particularly inflation and the consistency, coordination and transparency of economic policy.

**Gaps between desirable requirements and current situation:**

As noted above Malawi suffers from relatively high macro risk due to high and variable inflation; a sizable fiscal deficit; inadequate clarity in policy signaling; and a narrow economic base.

**Action plan:**

1. Government needs to control expenditure in order to achieve greater coordination between fiscal and monetary policy and to reduce inflation expectations.
2. The Reserve Bank needs to establish a clear method by which to signal its monetary policy stance.

**2. Moderate issuance needs relative to size of economy and market.**

**Sound practice:**

The government should not need to issue so much debt that it creates unacceptable exposure risk for investors. That is, investors reach their risk tolerance and exposure limits to government debt, driving interest rates up as investors resist further exposure.

Investors exposure limits to government debt will be influenced by the apparent sustainability of the governments borrowing. If investors think government is approaching its sustainable capacity to borrow they will try to reduce their exposure or only accept additional exposure at higher interest rates and shorter maturities. Investors want to avoid the risk that the government defaults on its debt, or inflates it away, or forces rollover at artificially low rates or long maturities.

The sustainability of borrowing depends on both the volume of debt and the interest rate, particularly the real rate.

**Description of current situation:**

Total domestic government debt is currently around 7% of GDP and 24% of financial assets. Domestic debt service was around 5% of total budget expenditure and over 13% of the deficit before grants in 1999. The cost of domestic debt service in 2000 and 2001 is expected to be higher as the average real interest rate on 271-day bills during 2000 to end-May was 25% compared to an 8% average real rate over 1999.

While there has been discomfort with the size of the government's deficit, the market does not appear to have considered the level of domestic debt issuance to be excessive, or questioned its sustainability, until the sudden jump to very high levels of real interest rates (30%-47%) that occurred in April/May 2000. Simulations using the 271-day treasury bill rate in early April (58%) and 1999 GDP and budget figures, indicate that if recent interest rates continue: (i) the stock of domestic debt will rise to 11% of GDP by end-2000 and 17.5% by end-2001; (ii) domestic interest costs will rise to around 8% of expenditure by end-2000 and 19.5% by end-2001. Clearly the recent rise in real rates is unsustainable. The reasons for the jump in real rates is discussed in section5 'Technical matching of quantity offered with market ability to absorb'.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

There are no circumstances in Malawi which reduce the relevance of good practice.

**Gaps between desirable requirements and current situation:**

The stock of domestic debt and the domestic funding cost in 1999, while high, were within acceptable bounds. However, the government needs to limit any further increases.

The jump in real interest rates over April/May 2000 has raised the issue of sustainability both in investors minds and in practice. Continuation of the high real rates seen in April/May will cause sustainability problems.

**Action plan:**

The immediate issue is lowering the level of real interest rates on treasury bills by eliminating the operational problems which caused rates to jump up in April/May. This is discussed in Section 5 below.

Additionally the government needs to control domestic expenditure to reduce its new financing needs and the tension between an expansionary fiscal policy and a tight monetary policy.

### **3. Variety of different types of buyers with different maturity needs.**

**Sound practice:**

The wider and deeper the market for debt: (i) the more likely it is that the Debt Office will be able to sell a range of maturities that meet its own maturity profile needs; (ii) the lower the refinancing risk facing the Debt Office as the sale of debt is not reliant on a narrow group or type of investor whose demand for debt will all be affected the same way by a particular shock; and (iii) the more likely it is that investors will have a variety of views about future events which will encourage and enable them to trade the securities in their portfolios in order to better align the structure of their portfolio with their expectations.

Ideally the range of investors should include investors who need to manage liquidity and so require short term money market paper, such as banks, corporates and individuals, and investors who require term investments such as insurance companies and pension funds.

There should be a sufficient number of institutions of a similar size to create competition and liquidity and to ensure the government is not reliant on a few large institutions to achieve its debt sales. Financial sectors dominated by a few large institutions may suffer liquidity problems as the trading needs of these large institutions will be disproportionate to the volume the market as a whole can support, with the result that trading does not occur as frequently as it could if institutions were all of a similar size.

**Description of current situation:**

While the financial sector in Malawi is quite diverse it is also very concentrated. This limits the potential liquidity in the market and also makes the government reliant on a smaller number of institutions for funding than the simple number of institutions would suggest. Government's refinancing risk is thus relatively more exposed to conditions affecting these large institutions.

Malawi has seven licensed commercial banks (but only five are operating as such), four non-bank lending institutions, nine insurance companies, a number of pension funds, a stock exchange with one broker and a discount house. Institutions of all these types are active in the government debt market. A number of individuals participate directly in the market and foreign buyers are also permitted to buy government debt.

The financial sector in Malawi is concentrated. Banks hold approximately 60% of financial sector assets and two banks have around 75% of bank assets (45% of financial sector assets). Individuals hold only around 1.5% of treasury bills directly and foreign investors 0.1%. Foreign investors are reported to be mainly Malawians resident abroad; the sharp devaluation of the kwacha has removed the interest of the small number of non-Malawians.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

While a wide and deep financial sector is desirable in Malawi the size of the economy is a serious impediment to achieving this: 1999 GDP was US\$1.8bn and estimated financial sector assets at December 1999 were US\$526 million.

At present the poor macroeconomic situation limits the extent to which the Government can, and would want, to sell term debt. This reduces the Government's ability to benefit fully from the presence of a diversity of types of financial intermediaries.

As discussed in section 5 below, the primary and secondary markets are adversely affected by technical operational issues. It is probably of more immediate benefit to put effort into addressing these operational issues than to seek additional institutional capacity.

**Gaps between desirable requirements and current situation:**

While the financial market is diverse it is very concentrated. The market and the government's ability to refinance its debt are relatively exposed to four financial institutions (two banks and two term savings institutions).

**Action plan:**

The small size of the economy and the high level of macro risk suggest that, in the short term, it will be more beneficial to focus on operational improvements discussed in section 5 rather than trying to attract additional institutional activity.

In the medium term the government needs to lower the level of macro risk (discussed in section 1) in order to create an environment in which it can benefit more from the existing diversity of financial institutions.

In the longer term the government needs to consider ways in which to reduce the constraint placed on financial sector competition by a small economy. The government could examine ideas for Regional financial markets being discussed in SADC to weigh the benefits to Malawi of such arrangements.

#### **4. Competitive primary market.**

**Sound practice:**

To achieve the lowest yields on its paper and to reduce refinancing risk the Government wants the widest possible participation in its sales of debt. To achieve this the government should: (i) make access to the

primary market as easy as possible and; (ii) ensure that investors know about its debt and have access to it either directly or through an efficient distribution system.

Access to the primary market can either be direct or through an intermediary. The government will benefit if direct access is as simple as possible and if indirect channels such as brokers are well developed. Intermediaries such as brokers and primary dealers generate more demand for government debt by performing a distribution and marketing function that attracts investors who would not otherwise have access or who prefer not to bid directly. How open the primary market is to direct participation differs across countries, although there is a trend towards more open access to auctions.

In some countries participation in the primary market is open to anyone who meets certain non-onerous criteria (such as minimum bid size and adequate proof of funds or acceptable credit risk). Such participation can be through a competitive bid or a non-competitive facility. For those who meet the criteria the choice of whether to participate directly or through an intermediary will depend on the added value (quality of advice, administrative ease) created by the intermediary.

In other countries direct participation in the primary market is limited to a group of financial institutions, often called primary dealers. In return for their privileged access to the primary market primary dealers have obligations, usually to support the primary market by bidding and by making a secondary market (quoting bid and offer prices) in government securities.

Which design is most suitable for a country depends on its local conditions.

Conditions which favor open participation are:

- \* Ability to process the volume of bids (this can be regulated by the minimum bid size).
- \* Geographic concentration of investable funds and financial institutions. If most investable funds and financial institutions are concentrated in a few cities it is easier for the majority of participants to directly participate in the auction.
- \* Good communications and payments systems. Good communications and an efficient payment system permit direct participation even when investors are widely scattered.
- \* A small financial sector. (i) If the financial sector is small limiting participation in the primary market creates a greater possibility of cartel behavior and rent seeking from the sub-set selected as primary dealers. (ii) Achieving a liquid secondary market (active bid/offer) will be more difficult in a small market. Official market makers may be swamped by the scale problem and add little marginal value in return for their privileged access to the primary market.
- \* A very large financial sector. In a large financial sector there should be sufficient secondary transaction volume that institutions will have the incentive to invest in market making without requiring the incentive of privileged access.

Conditions which favor limited participation are:

- \* Inability to process the number of bids that would occur with open participation.
- \* Widely disbursed investable funds and financial institutions, in combination with poor communications and payments systems. Wide disbursement of funds and institutions combined with poor communications and payments systems may create communications problems which require an organized distribution network to overcome. Giving limited access to the primary market may encourage primary dealers to develop this distribution network to widen the number of investors they can sell to.
- \* A medium sized financial sector. (i) A medium sized financial sector may be large enough that excluding some financial institutions from direct participation still leaves a large enough group of primary dealers to curb rent-seeking behavior. (ii) Market makers have more potential to add value by stimulating secondary liquidity in a medium sized market than in a small one.

No product, including government debt, sells without marketing and a good distribution system. The attractions of government debt need to be brought to the notice of investors. Investors need to be educated in how they can participate. Investors also require easy access to government debt. If investors cannot participate directly in the auction because their investment is too small, or they are too distant, or they do



not want to bid themselves, then a distribution system involving brokers or mutual funds or primary dealers is required to reach these investors. A good distribution system will: (i) make access easier by improving physical ease of access to bills and permitting smaller investments; and (ii) will improve secondary liquidity by providing a facility for investors to sell bills or allowing investors to make withdrawals from mutual funds, at a reasonable cost.

**Description of current situation:**

The auction results are advertised in national newspapers including amount sold, range of yields accepted and weighted average yield.

Participation is open to anyone who can (i) correctly complete the bid form, (ii) bid the minimum amount of MK10,000 and (iii) hold a bank account with any of the clearing banks. There is a non-competitive bid facility. Market participants think submitting bids is easy to do even for individuals. However, individuals may not be aware of how to bid. There are around 23 possible institutional bidders in Malawi. The average number of institutional bidders per auction is: 91 days, 4; 182 days, 6.3; 271 days, 9.3.

Market participants thought that most potential larger investors (defined as those with term deposits at banks) already had access to the market either directly or indirectly and those that chose not to invest required greater liquidity than offered by treasury bills.

Banks do not bid on behalf of their clients. If asked to do so they tell their clients how to bid. Stockbrokers Malawi Ltd. invests over K500 million in treasury bills for 150 clients at a fee of between 1-2% depending on the volume of funds. The average individual client invests K100,000 and corporate clients average K5 million. The discount house buys in the auction and will sell to investors from its portfolio. Other institutions claimed the discount house's spreads against the primary market were expensive and ranged over 4-10%.

There is no distribution network outside the main cities that would provide access to treasury bills. There are no mutual funds that would permit savers to access treasury bills. Given the level and distribution of wealth in Malawi it is not clear that the absence of these distribution channels excludes a significant amount of funds from accessing treasury bills.

The level of participation and competition in the primary market appear to be limited by the small size of the potential investor base. The design of the primary market does not appear to exclude a significant number of potential participants or significantly adversely affect the distribution of treasury bills.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

All the elements of good practice are relevant to Malawi. There are no conditions in the country which limit the relevance or applicability of maximizing access to the auction and ensuring that investors are informed about government debt as an investment product.

Income levels and wealth distribution probably reduce the relevance of country-wide distribution systems for selling treasury bills at the retail level.

**Gaps between desirable requirements and current situation:**

Malawi has chosen to open the primary market to all interested buyers who meet basic criteria. This approach appears to be achieving good participation levels relative to the funds available to invest. Open access is a good approach for a small market such as Malawi where limiting primary market access to a sub-group of institutions is likely to lead to rent-seeking and increase the government's cost of funds.

Although the bidding process is considered straight-forward potential bidders may not be aware of the

procedure.

**Action plan:**

The Reserve Bank should make efforts to raise investor awareness of treasury bills and the procedure for investing in them.

## **5. Technical matching of quantity offered with markets ability to absorb<sup>5</sup>**

**Sound practice:**

The volume of debt offered should be matched with the market's ability to settle for it. Whatever amount of debt is offered and whether it is based on debt management needs or monetary policy needs, there must be a method to ensure that there are sufficient excess reserve balances available to the clearing banks on the day of settlement to meet investors payment to the government. If the amount of excess reserves is inadequate, the result will be volatility in money market interest rates (as banks breach reserve requirements and borrow from the central bank to meet their clearing needs) and/or under-subscription of the government's debt offer.

It is entirely possible for investors to have sufficient funds to bid and over-subscribe a government debt offering while the banks have insufficient excess reserves to clear their clients checks to government without breaching reserve requirements and being forced to resort to the central banks accommodation window. This possibility exists because funds represented by bank account balances are not the same as settlement cash (banks balances at the central bank) which must be used to settle for treasury bill purchases .

This issue is important to both long term and short term debt, but is relatively more important for short term debt where banks are a larger part of the investor base.

The problem is one of liquidity management. It is an area where coordination between the Ministry of Finance and the Central Bank is important so that the size of the debt offering and the liquidity management issues are addressed together.

The liquidity management issue can be addressed in several ways. The most common way today is for the central bank to supply liquidity to the market through its open market operations to enable settlement. The central bank will supply funds now and select a maturity date for its open market operation on which it thinks there will be a surplus of funds due to government expenditure. In this way the central bank is not permanently supplying liquidity to the market but is re-arranging and smoothing the pattern of government flows.

Coordination between government cash management and central bank liquidity management is handled differently depending on the level of development of the government's debt management. Where debt management is very developed the government's cash management and the central bank's liquidity management are independent in order to give independence to the two policies. They are coordinated however; the Ministry will give the Central Bank its cash flow projections and plans so it can incorporate the information in its liquidity management planning. Where this separation exists: (i) the Ministry and Central Bank may use different instruments (the Central Bank may use its own debt, not treasury bills); (ii) the exchange of information between the Central Bank and the Ministry is not symmetrical – the Ministry provides its forecasts to the Central Bank but the Central bank does not provide any more information on its likely actions to the Ministry than it provides to the market; and (iii) the Central Bank will have sufficient independent funding to enable it to conduct liquidity management without threat to its operating budget or its policy independence. There have been cases where lack of independent funding led to the breakdown of monetary policy as the central bank could not afford the cost of open market operations.

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<sup>5</sup> Refer to Annex 1 for more detail.

Using central bank open market operations to smooth reserves is the preferred method but it requires capacity in government cash management and central bank liquidity management. If capacity is low in these areas, there are other approaches which can be used by themselves or in conjunction with liquidity management. (i) The volume of debt offered can be based on the liquidity available at the time. This will result in lumpy debt issues that follow the pattern of government expenditure. Irregular issues are more common in the money market, which has a short term cash management function, than in the term debt market where irregularity is considered disruptive to investors planning and to market liquidity. (ii) Specialized intermediaries (primary dealers) can be given access to credit lines from the central bank with which to finance primary market purchases, enabling them to warehouse government debt until they can on-sell it to investors. Credit lines are problematic however. An institution with access to central bank credit can disrupt the implementation of liquidity management and monetary policy by unsuitable use of its credit line. In small markets the privileged position conferred by the credit line can encourage rent-seeking behavior which increases government's funding costs.

**Description of current situation:**

Coordination is inadequate between the Ministry of Finance and Reserve Bank in setting the offer amount and managing the liquidity implications. Problems in this area have caused an upward movement in treasury bill rates that damages the real sector, greatly increases the cost of government's funding and damages investor perceptions about the credit quality of treasury bills. Weighted average primary market yields on the 271 day maturity (the maturity with the most issue volume) declined from 49.5% in January 2000 to 38.3% in March before then rising to 74.3% in May. Corresponding real rates are approximately 21.5%, 10.3% and 46.3%. The Reserve Bank states that rates at the extreme levels are not required for monetary purposes. The operational issues behind these rate movements are discussed in more detail, with charts, in Annex 1.

The jump in rates was unrelated to inflation expectations or policy requirements. The sudden jump in rates to extreme levels caused investors to ask whether the government was so desperate for funds that it might default on the bills, a question that had not been asked previously.

There appears to be a problem with the quantity of bills offered. The quantity of treasury bills offered in auctions is based on (i) maturing treasury bills, (ii) the Ministry of Finance's funding requirement for the period; and (iii) the Reserve Bank's need to control reserve money for monetary purposes.

During 2000 the amount of treasury bills offered often appears to be too large relative to the excess reserves available in the market to settle for the bills. The quantity of treasury bills offered was fairly stable between K400 – K700 million, however the average level of excess reserves declined from K334 million over January/February to K77 million over March/May while the number of days with negative excess reserves rose from 6% to 33%. Market participants, particularly banks, thought that auction sizes in this period were too large in relation to liquidity levels and did not see what liquidity the Reserve Bank could be trying to 'mop up'.

**Relevance of good practice to country situation & desirable requirements in country situation:**

The practice of coordinating issue size and liquidity management is very relevant in Malawi. It is particularly relevant as Malawi's debt is issued in money market maturities which have both a cash management and a monetary policy role.

**Gaps between desirable requirements and current situation:**

The sharp jump in rates was triggered by the authorities (i) setting the auction size without complete

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<sup>6</sup> See Annex 1 for a discussion of coordination.

information and without fully considering and integrating the liquidity management issues and (ii) in situations where the quantity offered was arguably too large, filling the quantity objective for selling bills without fully considering the interest rate consequences.

The quality of information used to make decisions on the quantity of treasury bills offered is inadequate. Better information is needed on the government's true domestic financing requirement in the period (net domestic revenue and expenditure) and on Reserve Bank transactions that affect market liquidity (foreign exchange and note and coin transactions with banks and changes in the reserve requirement).

An improved institutional structure within which to coordinate the needs of debt financing, monetary policy and external reserves management is also required. A committee of the relevant officials from the Ministry's debt and budget offices and the Reserve Bank's money market, external reserves and research areas needs to meet to plan each auction and ensure coordination between the needs of their different areas of policy<sup>6</sup>.

An issue which has not arisen yet, but which may do so in future as the reserve requirement is lowered, is how the Reserve Bank is to finance the cost of sterilizing the excess reserves created by the lower requirement. It is not clear if the Reserve Bank has the financial capacity to cover the cost of the required open market operations. The Reserve Bank and the Ministry need to discuss methods by which the Reserve Bank's financial position can be secured while at the same time providing the Ministry with assurances that any such funding will be used for monetary purposes and not for further consumer spending by the Central Bank.

**Action plan:**

1. Use historical data to obtain a clearer understanding of, and distinction between, the government's domestic financing needs and the central bank's need to manage liquidity. The attached table (Annex 3) can be used to identify and quantify the distinction between financing needs and monetary policy needs.
2. The Ministry and the Reserve Bank should use the analysis of historical data as a starting point to develop a better method of forecasting transactions that affect reserve money.
3. The Ministry and the Reserve Bank should develop a formal process for agreeing on the quantity of treasury bills to be offered. This process should coordinate the needs of fiscal, monetary and foreign reserves policies.
4. The Reserve Bank should analyze the potential cost of using open market operations more actively to smooth liquidity. The Reserve Bank needs to establish whether or not it has the financial capacity to undertake OMOs.
5. If the Reserve Bank's financial capacity to undertake OMOs is in doubt, the Ministry and the Reserve Bank need to establish a method of ensuring that the Reserve Bank acquires the capacity.

## **6. Debt instruments suited to market demand**

**Sound practice:**

The government will lower its funding costs and improve the success of its debt sales if it offers debt instruments that meet the needs of investors. The government should maintain contact with investors to establish the characteristics that investors are looking for in debt issues. The government may not want to supply all the types of debt the market wants; some types of debt may not suit the government's needs and issuing many different types of debt may result in too many small issues so that no secondary liquidity can be obtained.

**Description of current situation:**

The Reserve Bank and the Ministry do not regularly discuss preferences with the market. Market participants thought that most potential investors already had access to the market either directly or indirectly and those that chose not to invest required greater liquidity than offered by treasury bills. These investors prefer term deposits (which total around K7 billion). A treasury bill with a shorter maturity such as 30 days would widen the market by attracting some of these funds.

The plan for the Reserve Bank to issue its own debt will result in two separate types of debt, reducing the potential secondary liquidity in both treasury bills and Reserve Bank debt by reducing the homogeneity of the debt issue.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

The size of the Malawian market, the high level of macro risk and the less developed stage of the market all reduce the potential for the government to have scope for variety and flexibility in its debt issue. However, this does not reduce the relevance of the government: (i) determining what type of debt best suits its needs and; (ii) maintaining active contact with the market to discover what type of debt will sell best.

**Gaps between desirable requirements and current situation:**

There is no process by which the MoF directly or indirectly via the RBM canvasses the market to establish preferences for types of debt.

**Action plan:**

The Reserve Bank should initiate regular contact with investors to establish the types of debt for which there is the most demand.

The Reserve Bank should discuss its findings with the Ministry, who should compare market preferences with the Government's risk and cost objectives and decide if they want to alter the type of debt offered in response to market demand.

## **7. Adequate notice of sovereign issuance plans.**

**Sound practice:**

A regular sales schedule and announcing the volumes and maturities to be sold ahead of the auction allows investors to plan their participation. In many countries the schedule of sales of term debt for the year is announced at the start of the year. Pre-announcement allows intermediaries to contact clients and get indications of interest, which enables them to maximize the demand they bring to the auction. Pre-announcement also gives investors time to organize funding to pay for successful bids.

The quantity of short term debt offered tends to be more closely related to the supply of liquidity at the time of offer, causing the amounts to be more variable and to be decided closer to the time of sale. To assist investors in short term debt the central bank often provides its forecasts of liquidity for several months ahead, updated regularly to reflect new information.

**Description of current situation:**

Treasury bill auctions are conducted bi-weekly by the Reserve Bank of Malawi. The same three maturities (91, 182 and 271 days) are offered at each auction. The amount to be offered in each maturity is announced 3 to 4 days prior to the auction.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

Pre-announcement to allow planning and maximize participation in the auction is relevant in Malawi. As the government does not issue term debt the idea of pre-announcing an issue schedule for the year is not relevant. This makes provision to the market of the central bank's liquidity forecasts relatively more important (as long as the forecasts are accurate enough to be useful).

**Gaps between desirable requirements and current situation:**

As the government is issuing short term debt, it would be beneficial if the Reserve Bank could make forecasts of liquidity for the coming months available to the market. The Reserve Bank is unable to do this presently as its forecasts of liquidity are not very good.

**Action plan:**

The Reserve Bank and the Ministry should begin to develop a better basis for forecasting the transactions which affect the level of excess reserves. Refer to the action plan for section 5.

Once the Reserve Bank's ability to forecast system liquidity has progressed sufficiently to be useful to the market (rather than confusing) the Reserve Bank should consider making its forecasts for the coming months public.

## **8. Homogeneous issues to assist liquidity and derivatives.**

**Sound practice:**

Investors will reduce the interest rate they require on debt from a given borrower if (i) the design of the debt meets a particular need they have or (ii) the debt has secondary liquidity so they can sell it easily and at low cost. Governments can try to reduce their funding costs by either (i) following an opportunistic strategy and issuing debt to meet niche demands and/or (ii) concentrating their debt issuance in a few issues to gain the benefits of secondary liquidity which large issues can achieve.

In their domestic markets where the government is the dominant issuer – sometimes effectively being the market – governments find that the liquidity benefits of homogeneous debt issues exceed the benefits of opportunistic (but fragmented and less liquid) issues. Consequently, in domestic markets governments seek to issue homogeneous debt that can achieve secondary liquidity. The homogeneity of the debt issue is increased by re-issuing debt with the same maturity date and coupon on several occasions to increase the quantity of the particular maturity, so establishing benchmark issues.

Debt that has secondary liquidity has the further benefit that it enables the development of derivative instruments (such as options, swaps, futures and forwards) which further add to liquidity.

**Description of current situation:**

The government is issuing 91, 182 and 271 day treasury bills. Later issues of 91 day bills will have the same maturity date as earlier issues of 182 day bills.

**Relevance of best practice to country situation & desirable requirements in country situation:**

Homogeneity is relatively more important for long term debt where investors are exposed to the issuers credit risk, interest rate risk and their own liquidity situation for long periods. In this situation secondary liquidity is more important than it is for short term debt where maturity is close and can provide liquidity.

**Gaps between desirable requirements and current situation:**

As the only debt issued is short term debt, current practice is suitable.

**Action plan:**

Currently no action is required. When macro risk is reduced sufficiently to allow the issuance of term debt the government should ensure it develops benchmark issues by re-opening issues (offering debt of the same maturity and coupon at several auctions) to build up a sufficient issue volume to make it possible to buy and sell large amounts of these issues – so assisting liquidity.

## **9. Safe and timely title registration and transfer.**

**Sound practice:**

There is a trend away from securities in certificate form to securities issued in book-entry form and kept with a depository institution. Securities accounts have advantages over certificates: they lower transactions costs, eliminate delays in being able to trade the securities; are administratively simple and provide protection against loss of the physical scrip. Securities accounts also open the way to cheap and efficient settlement procedures which allow expansion of the market. Expansion of the primary market and particularly secondary trading can be blocked by the cumbersome nature of paper certificates.

It is important that the law recognizes electronic documents as legal evidence and as final settlement. Book-entry securities must be consistent with bankruptcy legislation and the beneficial owner must be clear. Immobilization of paper certificates has been used as an intermediate step where the legal framework is inadequate.

**Description of current situation:**

Treasury bills are in bearer form. The Reserve Bank retains a record of the purchaser in the primary market but has no record of subsequent or beneficial owners unless informed. Transfers of ownership must be reported to the Reserve Bank for the new owner to receive payment on maturity.

It usually takes one week to obtain certificates following the auction during which time the bills are not available to sell or use as security. Instances of delays in receiving certificates of 3-4 weeks were reported.

Given the low level of trading most institutions felt the existing system was adequate to their needs. A few institutions, particularly the discount house, expressed frustration at the delay in obtaining certificates following the auction as during this period they have lost use of the funds but cannot use the bills as

security or sell them.

While paper-based title is adequate now it will prove cumbersome as the secondary market develops. The Reserve Bank plans to introduce a book entry system.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

Improving the secondary liquidity of government debt is relevant to Malawi and safe and timely title registration is a necessary condition to develop liquidity. Even though only a few institutions are currently frustrated by the limitations on liquidity imposed by the current title transfer arrangements, it is enough to indicate that the issue is relevant and is likely to grow in importance in future.

**Gaps between desirable requirements and current situation:**

The paper-based system for treasury bills will prove cumbersome as the market develops and become an impediment to market development.

**Action plan:**

The Reserve Bank has a plan for the introduction of treasury bills in book-entry form.

The Reserve Bank should establish the adequacy of the legal framework for book-entry securities to ensure that securities in book-entry form are recognized as legal evidence of title and as final settlement..

## **10. Safe and timely ability to transfer funds to purchase debt instruments.**

**Sound practice:**

To facilitate secondary trading and the active management of liquidity it is necessary that large transactions can be cleared for same-day value. This requires a large-value payment facility in the payment system. Delays in the payment system benefit financial institutions with large stable retail deposit bases relative to institutions with more volatile wholesale deposit bases. Slow settlement inhibits the extent to which these institutions can become involved in market-making as if they loose deposits they cannot easily replace them the same day, and this reduces the amount of non-cash assets that they can prudently support with their deposits.

Settlement should also be done on a delivery-versus-payment basis (delivery of securities is simultaneous with payment) to reduce risk of default.

**Description of current situation:**

The National Payments Council is examining improvements in settlement. Transactions between institutions with clearing accounts occur for same-day value. Other transactions take three to five days. There is no large-value system to achieve same-day clearing for large items. This inhibits the spread of the inter-bank market to include financial institutions without settlement accounts at RBM and corporates as their funds cannot be obtained same-day.

Primary market purchases of treasury bills are paid for by same-day debit of the buyers bank account via the clearing account of its bank.



Secondary securities transactions are not on a delivery-versus-payment basis. The delivery of the paper certificate and the availability of the funds occur at different times, increasing default risk. Presently paper certificates are delivered by hand. Maturities are selected to avoid holding bills when they mature as payment is automatically made to the registered owner in the books of the Reserve Bank, not to the holder of the certificate, although the endorsed certificate is proof of ownership. This arrangement did not concern market participants.

The slow pace of funds transfer was not of concern to the larger banks. It was of concern to the smaller institutions however, particularly the non-banks including the discount house. The non-banks and discount house do not have large retail deposit bases and are more reliant on wholesale funding. Being able to actively manage their wholesale funds is thus more important to these institutions and the slow pace of settlement affects them relatively more than it affects the banks. For example, if a non-bank loses a deposit because a client buys treasury bills in the primary market, it cannot obtain additional funds from another non-bank client the same day to cover the loss; it must obtain funds from another financial institution with a settlement account during the three days it takes to get value on new funds.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

There are no circumstances which reduce the validity of good practice in Malawi.

**Gaps between desirable requirements and current situation:**

The lack of a large value clearing facility inhibits further development of the inter-bank market and secondary trading in bills.

The lack of DVP increases the exposure risk in the system. This risk will increase over time as secondary trading becomes more common. Establishing DVP requires developing a depository for treasury bills.

**Action plan:**

The Reserve Bank should work with the financial institutions to develop a large-value clearing mechanism.

As noted in section 9 above the Reserve Bank has a plan for the introduction of book-entry bills. The depository for these bills should be integrated with the payments system to achieve DVP.

**11. Secondary trading 1: Competitive pressure on term savings institutions to manage risks and improve portfolio return.**

**Sound practice:**

Term savings institutions should be under competitive pressure to maximize returns in a manner consistent with the stated risk profile of each savings product. When term savings institutions face competitive pressure to maximize returns for the permitted risk profile of the funds they manage they tend to manage their funds more actively to both enhance return and control risk (reduce volatility of return). Active management leads to greater secondary trading in government debt and so greater liquidity. Competitive pressure requires: (i) freedom to invest funds in any asset type and mix that is consistent with the risk profile of the product, and not be compelled to invest funds in certain assets in proportions fixed by regulation; (ii) a number of competing term savings institutions; and (iii) liquid markets that allow term institutions to alter asset allocations quickly and at low cost.

Without competitive pressure the volume of trading will be lower. In a less competitive environment there may not be enough business to support market makers and to stimulate the development of derivatives.

**Description of current situation:**

Term savings institutions in Malawi are not under serious competitive pressure to enhance their risk/return profile. There are no quarterly public reports or comparisons of returns on pension funds to stimulate more active management. This reduces institutions degree of activism. The lack of competitive pressure reflects both the small size and the less developed state of the market. Further, the limited range of liquid investments in Malawi reduces the scope portfolio managers have to differentiate their returns from the average and to manage risks.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

Good practice is relevant to Malawi, however the size of the market presents a structural barrier that limits the number of term savings institutions and the amount of secondary trading that can be expected. This will be difficult to overcome.

**Gaps between desirable requirements and current situation:**

The lack of competitive pressure is contributing to the low level of market liquidity.

**Action plan:**

In the longer term the government needs to consider ways in which to reduce the constraint placed on financial sector competition by a small economy. The government could examine ideas for Regional financial markets being discussed in SADC to weigh the benefits to Malawi of such arrangements. The government could also consider permitting domestic term savings institutions some exposure to foreign investments.

**12. Secondary trading 2: Central Bank operating procedures which provide banks with an incentive to actively manage liquidity and interest rate risk and also avoid excessive interest rate volatility.**

- \* **Accommodation policy**
- \* **Reserve compliance period**
- \* **Accuracy of liquidity management to assist auction settlement and reduce volatility in short term rates.**

**Sound practice:**

Ideally the money market (both inter-bank and secondary treasury bill markets) should be liquid and free of excessive interest rate volatility. While the central bank's primary concern in establishing its operating procedures is to ensure the effective implementation of monetary policy, the mix of settings it chooses largely determines the liquidity and volatility characteristics of the money market.

There are many possible settings and designs for the central bank's operating procedures. In terms of market development the aim is to find a mix that, given local conditions and the central bank's capacity in liquidity management, generate the best possible trade-off between creating an environment that will stimulate banks' need to actively manage liquidity risk (and so transact, creating secondary liquidity in the market) while simultaneously avoiding excessive interest rate volatility.

Accommodation policy is the terms on which the central bank will advance funds to the market and accept

deposits. The more penal the accommodation policy is (the higher the rate it lends at relative to market rates and the lower the rate it pays on deposits) the more incentive banks have to actively manage their liquidity risk. Active management of liquidity risk makes banks and money market interest rates more sensitive to changes in excess reserves.

The reserve maintenance period is the period over which banks have to meet the reserve requirement. A short reserve maintenance period gives banks a greater incentive to actively manage liquidity risk than a long period. A long period permits banks to offset a shortage on one day with a surplus on another.

A central bank with good capacity in liquidity management can conduct open market operations to smooth out fluctuations in reserves caused by government flows and other factors. The more capacity the central bank has to smooth liquidity, the more it can increase banks' incentives to manage liquidity risk by tightening accommodation policy and shortening the reserve maintenance period without causing excessive interest rate volatility. The central bank does not want to manage the level of excess reserves too exactly or it will come full-circle and remove the incentive for banks to trade with each other to manage their liquidity.

**Description of current situation:**

The Reserve Bank of Malawi supplies funds through its accommodation window using either repurchase agreements or outright purchases (although it discourages these). Funds are supplied for maturities of 1-7 days at the higher of the Bank Rate or the 271 day treasury bill rate plus 1%. The Bank Rate is supposed to be based on a moving average of the 271 day rate but has been 47% for some time as the 271 day rate has been higher and RBM has not wanted to send a tightening signal. RBM does not pay interest on deposits although 25% of funds deposited with the discount house (100% prior to June 1<sup>st</sup>) count toward the reserve requirement.

A weekly reserve maintenance period was initiated from June 1<sup>st</sup>. Prior to that the requirement was daily with one days grace. That is, if a bank was short one day it could make it up the next day and avoid a penalty. Banks were penalized if they were short two days in a row.

The reserve requirement was lowered from 35% to 30% on June 1<sup>st</sup> and RBM would like to lower it further.

RBM does not have a developed process for forecasting liquidity. Although there is now better participation by the Ministry of Finance there is no information on daily or weekly government flows on which to base forecasts. RBM bases its ideas on the maturing stock of treasury bills and its quarterly reserve money program. The data the Ministry provides on government flows is an improvement on the previous situation but is not accurate.

RBM has tried to auction repurchase agreements but this did not work. It now announces it is willing to do repos. and negotiates with banks bilaterally. The rates are around the rates in the most recent auction.

The inter-bank market transacts bilaterally after clearing, which occurs between 2.00-3.00pm. The larger banks try to get information from their branches and clients with which to estimate their position prior to clearing and if they have a reasonable idea of their position will ring other banks prior to clearing to signal their requirements. Banks have clean or secured lines with each other.

The inter-bank rate is based on the marginal cost of funds, generally the 7 day deposit rate, and is relatively insensitive to the level of excess reserves except when a bank has gone to the accommodation window. A bank which has borrowed from the RBM's accommodation window and then finds itself in surplus will try to recoup the cost and base its inter-bank rate on the accommodation rate (which is in turn based on the 271 day bill rate).

The stability of the inter-bank rate is unexpected given the tight accommodation policy, short reserve maintenance period and volatile and low level of excess reserves. Its stability is due to the habitual way in

which the banks behave in the inter-bank market: the banks treat inter-bank activity as a cost-control activity not a profit center.

The habitual behavior is largely due to the two largest banks having a 75-80% share of the market and the market generally being one-way (large systemic surplus or shortage of excess reserves such that it is not possible for banks to trade with each other to clear their individual shortages or lay-off their surpluses). With a one-way market and two dominant banks it is easier for banks to behave habitually than to try and develop a profit center in inter-bank activity. From January 1999 to June 2000 excess reserves were spread between the banks in a way that generated a one-way market 65% of the time; a relatively even distribution of negative and positive balances conducive to a two-way market 15% of the time; and a one-way market with trading (uneven distribution that would have generated a reasonable volume of trading but not enough to clear the net negative or positive balances) on 20% of occasions.

Treasury bills are listed on the stock exchange although most trading takes place over the counter. Since 1995 a total of K280 million bills have traded on the exchange. This is an average of K50 million annually, equal to 1.25% of the average annual stock over the period. Most trading takes place off the exchange between institutions. Treasury bills are used as security for inter-bank lending but there is little secondary trading of treasury bills due to the one-way nature of the market. When a bank needs to sell treasury bills to obtain liquidity it is likely that other banks are also short of funds. The discount house, insurance companies and pension funds buy bills from banks requiring liquidity on a negotiated basis. Institutions only sell treasury bills as a last resort as it is expensive.

The discount house has little comparative advantage in market making. Most of its funds are short term deposits from banks that, until June 1<sup>st</sup>, counted 100% toward the reserve requirement. It has access to Reserve Bank funds on the same terms as the banks. The discount house thus brings no additional liquidity to the market and is as affected as much as other institutions by the fluctuations which cause the market to be one-way. To remain profitable and to meet the security requirements of the banks who deposit with it on a secured basis, the discount house has a large proportion of its assets in treasury bills which reduces the funds available for market making.

**Relevance of sound practice to country situation & desirable requirements in country situation:**

As the government's debt is mostly in maturities of 91-271 days developing the domestic money market in Malawi is of more importance than average as developing the money market is equivalent to developing the domestic debt market in this case.

To assist the development of the money market it is desirable for the Reserve Bank to select a mix of operating procedures which will give banks the incentive to actively manage liquidity while at the same time not creating excessive volatility.

The fact that two banks account for 80% of the banking sector will make creating an active inter-bank market more difficult as it will be more difficult to create the incentive for the banks to see the inter-bank market as a profit center. Until banks treat the inter-bank market as a profit center they are likely to act habitually rather than competitively price reserve money in reaction to supply and demand in the market.

**Gaps between desirable requirements and current situation:**

Liquidity management and the design of accommodation policy are two areas in which Bank of Malawi could consider changes to improve the functioning of the money market.

The Reserve Bank does not have the information necessary to actively manage and smooth liquidity. This lack of capacity in liquidity management is responsible for the large fluctuations in excess reserves which cause the inter-bank market to be one-way most of the time. If the Reserve Bank could improve its liquidity management to eliminate the extreme fluctuations in excess reserves it would assist the development of a two-way market. To indicate the impact of extremes of excess reserves in creating a one-way market, the

absolute average value of daily excess reserves when the market conditions were one-way was K451 million; one-way with trading, K169 million; and two-way, K48 million. Conditions conducive to a two-way market would encourage banks to consider treating the inter-bank market as a profit center.

Basing the accommodation rate on the 271 day rate increases the risk institutions face if they try to fund a treasury bill portfolio with money market funds. This makes market making riskier. Institutions are also biased toward purchasing 271 day bills rather than shorter maturities as the negative spread they face if they need to borrow from the Reserve Bank (or from the market in tight periods) is lower on 271 day bills than on shorter maturities with lower yields.

Basing the Bank Rate and accommodation rate on the 271 day rate will hinder future market development once liquidity management has been improved. If conditions for a two-way market existed, basing the accommodation rate on the 271 day rate would effectively create a flat or very shallow yield curve from overnight to 271 days. Accommodation policy will determine the yield curve to 271 days. The more usual case is for the central bank to influence the overnight rate for policy purposes and for the longer money market maturities to be set by market conditions. This usually results in an upward sloping money market yield curve which assists market making as institutions can borrow in the market at shorter maturities to fund treasury bill portfolios.

The presence of two dominant banks will remain an issue even after the RBM has achieved better control over daily liquidity and improved the design of its accommodation policy. Once these changes are in place banks could continue to behave habitually. If this happens it is difficult to counter and the solution lies in the medium term as the financial sector grows and other banks and institutions begin to manage liquidity more actively, forcing the larger banks to do so to compete. Alternatively, as has happened in small financial systems elsewhere, banks may try to corner the market in liquidity to inflict a 'penalty' on each other. Actions to corner the market can be countered by the Central Bank supplying (or threatening to supply) additional funds to break the corner and reduce the incentive for this behavior.

**Action plan:**

1. The Reserve Bank and the Ministry need to cooperate to develop better forecasts of the factors affecting the level of excess reserves. Refer to the action plan for section 5.
2. Once the Reserve Bank has better forecasts it should become more active in managing the level of system liquidity so as to avoid extreme surpluses or shortages.
3. The Reserve Bank should research the possible alternative designs for an accommodation policy based on the overnight rate.

## Annex 1

### Matching quantity offered with market's ability to absorb

Coordination is inadequate between the MoF and RBM in setting the amount of tbill offered and managing the liquidity implications. This caused large fluctuations in tbill rates in April/May 2000, when the tbill offer was large relative to the supply of excess reserves and bids were accepted to achieve the arguably over-large quantity without regard to the impact on interest rates.

The level of excess reserves declined in 2000 compared to 1999 and was particularly low in April/May 2000. Chart 1 shows the level of excess reserves from January 2000 to early June 2000. The average level is K159 million, well below the average over January 1999 to June 2000 of K306 million. The level is even lower over March/June 2000 when it drops to K77 million. From January 1999 to June 2000 excess reserves were negative on only 7% of days. This rose to 24% over January/June 2000 and 33% over March/June 2000.

Chart 1

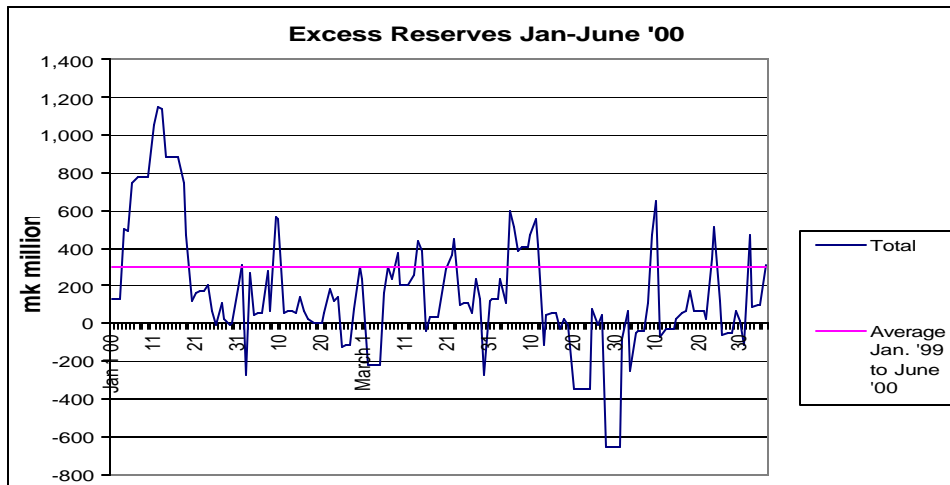


Chart 2 shows that the amount of treasury bills offered was not closely related to the supply of liquidity in the market available to settle. The amount of tbills offered was large relative to liquidity, particularly in April/May 2000, and resulted in significant negative excess reserves. Reserve Bank open market operations were not used to provide liquidity to ease settlement.

Chart 2

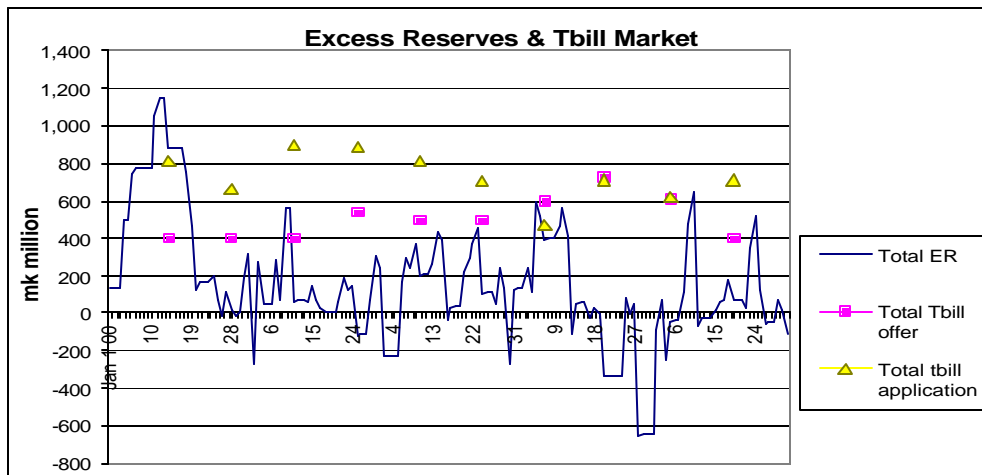


Table 1 Shows auction results from January 2000. The low levels of liquidity led to thin bidding and under-subscriptions in the popular 271 day maturity on March 24<sup>th</sup> and April 7<sup>th</sup> when the number of institutional bidders for 271 day bills was lower than usual (seven rather than the average of nine) and bids were less than the offer by K38 million and K52 million respectively. All bids were accepted, even though the top yields were very much in excess of previously accepted bids. Bidding was still thin on April 12<sup>th</sup>, but the higher yields attracted a surplus of bids in the 271 day bill. Most of this over-subscription was accepted to make up the deficiency in subscriptions for the 182 day maturity. On April 20<sup>th</sup> and May 5<sup>th</sup> bids in excess of the offer were accepted for the 271 day maturity of K129 million and K 105 million respectively to compensate for a shortfall in bids for 182 day bills.

The market interpreted the higher accepted yields and the acceptance of bids in excess of the offer as signs that the government was desperate for funds. Investors responded by shifting the entire rate structure upward in bidding, initiating a trend that peaked at a maximum accepted rate of 90% on May 5<sup>th</sup> before declining to a still high level of 75% on June 2<sup>nd</sup>. The weighted average yield was dragged up from 38% to 74% over this period.

Table 1

	Auction Volumes, K million							
	91 day bills		182 day bills		271 day bills		Aaareate	
	Under/over subscription	Rejection/ over-accept.	Under/over subscription	Rejection/ over-accept.	Under/over subscription	Rejection/ over-accept.	Under/over subscription	Rejection/ over-accept.
Jan 14 2000	232.7	44.5	-40.9	0	230.6	4.4	422.4	6.6
28	32.1	0.48	-0.46	0	227.7	1.6	259.34	1.62
11-Feb	25.68	25.68	242.33	0.26	236.9	1	504.91	26.94
25	0.3	0.3	135.68	0.34	211.65	0.74	347.63	1.38
10-Mar	55	55	121.92	1.96	136.7	-0.51	313.62	56.45
24	75.4	6.3	166.65	32.34	-37.8	0	204.25	0.64
7-Apr	-55.1	0	-23	0	-52.3	0	-130.4	0
20	8.2	8.2	-106.9	0	132.16	128.95	33.46	30.25
5-May	-10.4	0	-91.7	0	111.56	104.7	9.46	2.6
19	94.1	1.2	109.6	0.3	105.7	-1.1	309.4	0.4

Chart 3 shows the sharp jump in the high accepted bid on March 24<sup>th</sup> and April 7<sup>th</sup> and the subsequent rise in the weighted average yield.

Chart 3

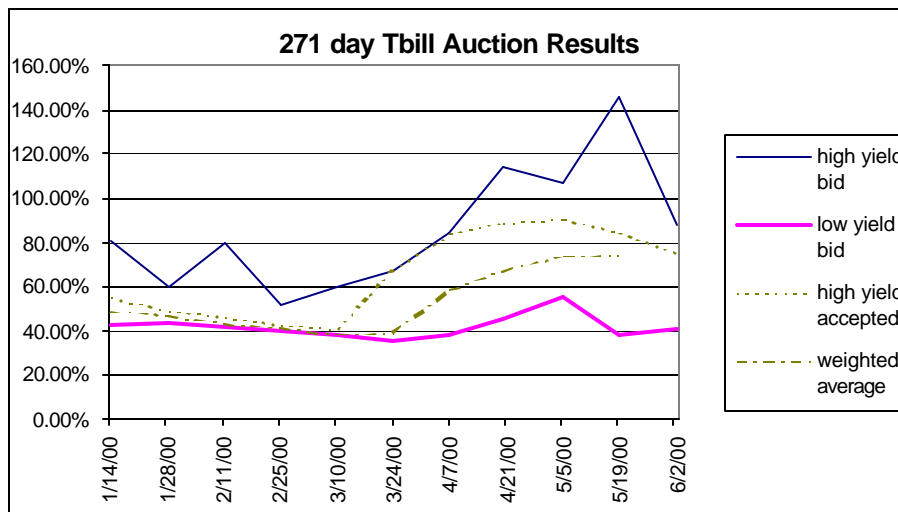
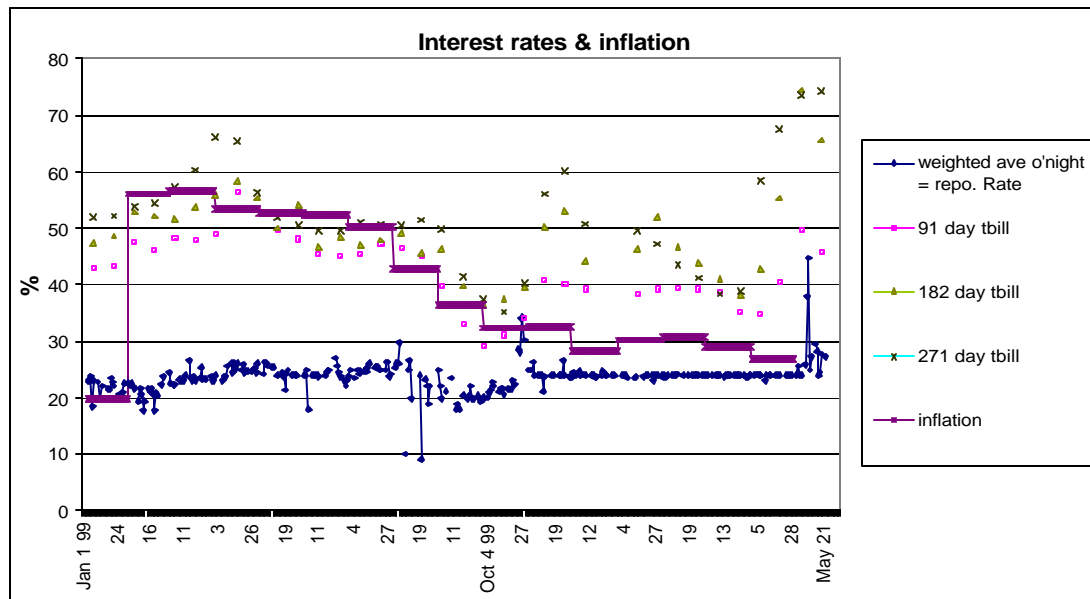


Chart 4 shows that the sharp rise in treasury bill yields was not related to changes in inflation which was still trending downwards. It was also not initiated by the overnight rate which spiked in response to the shortage of liquidity, but *after* treasury bill rates had risen.

Chart 4



The operating problems that lead to the jump in rates in April/May 2000 are rooted in inadequate cash management at the MoF and inadequate coordination between the MoF and the RBM. The purpose of the treasury bill issue (fiscal or monetary) is noted internally and the Reserve Bank pays the Ministry of Finance for the interest on bills issued for monetary purposes. There is dissatisfaction with this procedure as the Ministry feels more bills are being issued than it requires and the distinction between fiscal and monetary needs is not clear enough. It is proposed to begin issuing separate Reserve Bank bills to draw a clearer distinction between fiscal and monetary needs. For example, the Reserve Bank lowered the reserve requirement from 35% to 30% of deposits on June 1<sup>st</sup> and proposes to reduce the requirement further in future. Lowering the reserve requirement will increase the quantity of excess reserves and this increase will need to be sterilized.

The source of the difference of opinion between the Ministry and the Reserve Bank on the correct quantity of bills to issue for deficit financing purposes needs to be clarified. The Ministry's view is based on comparing the primary deficit after grants with the volume of treasury bills issued. However, this comparison assumes that foreign exchange received from grants is sold to sterilize the impact of spending kwacha counterpart funds domestically. This may not be the case – the foreign exchange may be retained to build up foreign reserves. This suggests the need for greater coordination between deficit financing, foreign reserves policy and monetary policy.

The Ministry needs to bring to the table: (i) a much more accurate forecast of the government's net domestic expenditure in the period covered by the auction and, based on this, a more accurate estimate of its domestic funding needs; (ii) a position on the interest rates it is prepared to accept on its debt (which needs to be consistent with the rates needed for monetary policy).

The Reserve Bank needs to bring to the table: (i) the Research Depts. profile of total reserve money required to achieve the quarterly target; (ii) the Research Depts. position on the level of real interest rates acceptable for monetary policy purposes; (iii) a position from the external reserves managers on the amount



of reserves that are potentially available to sell as an alternative to treasury bills and an opinion on the markets ability to absorb sales of foreign reserves without impacting the exchange rate; (iv) forecasts from the money market staff of other factors affecting market liquidity over the period (central bank note and coin transactions, changes in required reserves, planned foreign exchange dealing); (v) a plan by the money market staff on the use of open market operations to smooth market liquidity, given forecasts of other factors affecting market liquidity, the Ministry's funding needs, the planned sales or purchases of foreign reserves, the need to meet the reserve money target and the need to smooth market liquidity to avoid interest rate volatility.

The committee would agree on: (i) how the funding need is to be met from sales of treasury bills and foreign reserves; (ii) how the Reserve Bank is to use OMOs to smooth liquidity and enable auction settlement to occur without causing money market volatility; (iii) the maximum yield acceptable to the Ministry that is also acceptable to the Research Dept. for monetary purposes; (iv) a plan for using OMOs to deal with excess liquidity in the event of insufficient bids.

The approach suggested here differs from good practice in developed markets in two respects. Firstly, it is good practice to completely separate debt management and the central bank's liquidity management so that the Ministry does not obtain inside information on future trends in market conditions and interest rates. The Ministry would supply information on government cash flows and domestic funding needs to the central bank but would not observe the central bank's plans for liquidity management. At this stage of market development in Malawi it is considered beneficial for there to be greater transparency between the Ministry and the Reserve Bank in order that they may develop a better understanding of each others roles and requirements. This will improve cooperation and coordination. Separation of functions can be implemented after a cooperative and coordinated working method is developed.

The proposal to introduce a Reserve Bank debt instrument independent of treasury bills does not address the core problem of improving the quality of the information on which the auction size is based. Creating separate instruments at this stage without better information with which to distinguish between fiscal and monetary needs will not solve the present dispute and will not improve liquidity management. A separate instrument will lead to market segmentation which will delay the development of liquidity.

The second deviation from good practice is the suggestion to establish maximum yields acceptable to both the Ministry and the Research Department. The use of a cut-off is only suggested here as a pragmatic and *very short term* measure to avoid a recurrence of the jump in rates seen in April/May 2000. Once some improvement in coordination and liquidity management is established the probability of a repeat of the events of April/May will decline and the auctions should revert to being fully market-determined. In a small market such as Malawi the authorities have a greater need than authorities in larger and more developed markets to reserve the right to cut-off auctions to avoid rate volatility leading to an unwarranted ratchet effect on rates. However, this should not be used to manipulate rates to stifle the true market pricing of risk. It is not good practice to set both quantities and prices as this leads to market manipulation and non-market outcomes.

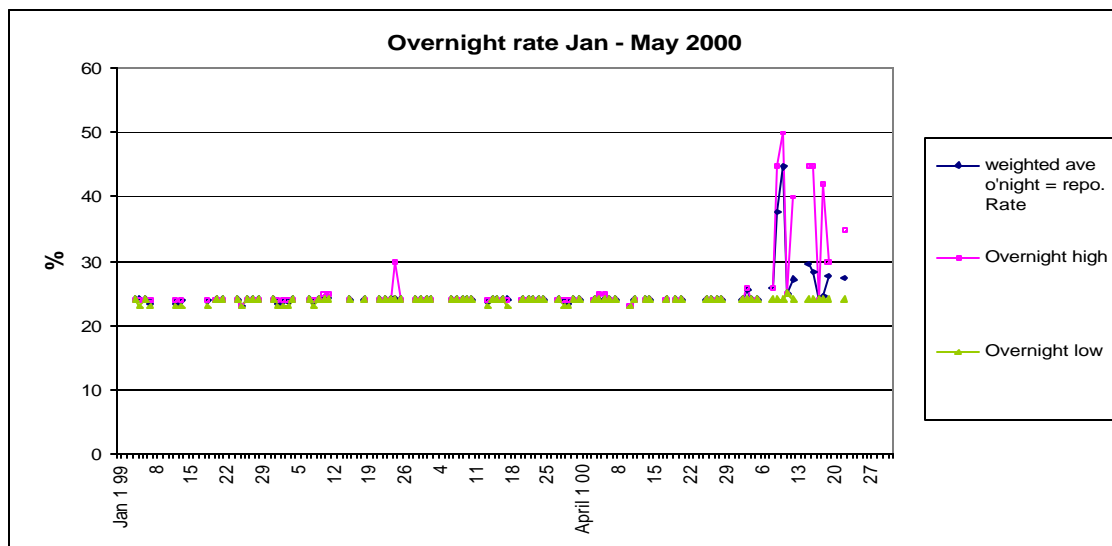
## Annex 2

### The impact of liquidity management on the interbank market

Charts 1 and 2 show the extreme stability of the overnight rate. The rate is based on banks marginal cost of funds. Normally this is the 7 day deposit rate except when a bank has had to borrow from the Reserve Bank, when it will base its interbank rate on the cost of funds from the Central Bank. Passing on the cost of borrowing from the Reserve Bank caused the volatility at the end of the period shown in the charts .

The habitual nature of the market is shown in the lack of variation in the overnight rate on the same day and the lack of movement in the rate in response to volatility in the level of excess reserves. The lack of movement in the overnight rate in response to changes in excess reserves is notable as the reserve maintenance period was effectively 2 days, which is very short, and accommodation policy is penal. In a market that trades bilaterally by telephone without screens there is usually a greater variation in the overnight rate between different banks due to lack of transparency. In a more developed market with a short reserve maintenance period and penal accommodation policy one would expect to see more variability in the overnight rate in response to changes in the level of excess reserves.

Chart 1



A major reason for the collegial nature of the market is the lack of incentive to devote resources to making inter-bank operations a profit center rather than a cost control center. The lack of incentive is due to the one-way nature of the market caused by the frequent large surpluses or shortages of excess reserves.

Chart 3 shows the strong relationship between the conditions for a two-way market and the size of the shortage or surplus. A two-way market can exist when surpluses and shortages of liquidity are spread around the market reasonably evenly so that there is a lot of opportunity to trade to clear positions. A one-way market occurs when all participants are on the same side of the market – long or short – so there is no opportunity to trade to clear positions. The average absolute level of excess reserves when conditions were adequate for a two-way market was K48 million, compared to an average K450 million when conditions dictated a one-way market.

More active and accurate management of liquidity by the Reserve Bank is required to create the conditions favorable to a two-way market.

Chart 2

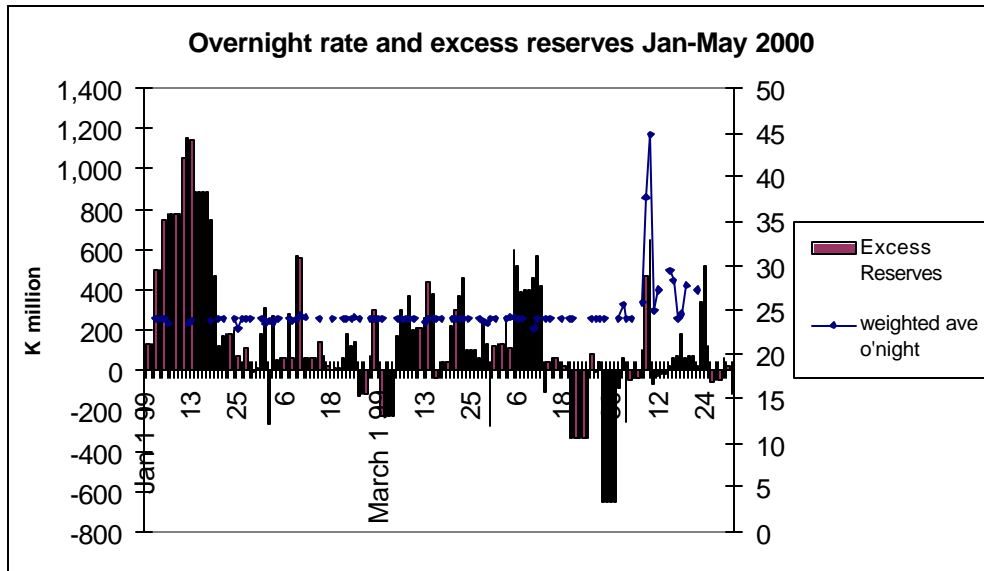


Chart 3

