

**THE PAYMENT SYSTEM  
IN TANZANIA**



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## OVERVIEW OF THE NATIONAL PAYMENT SYSTEM IN TANZANIA

Tanzania had a socialist-centrally-planned economy for about 30 years after independence with one state owned bank dominating the banking industry for about 25 years until 1993 when the financial industry was liberalised.

Cash has been the dominant payment instrument with little usage of cheques and telegraphic transfers as main debit and credit instruments respectively. There were no clearing houses until 1993 when one was introduced in Dar Es Salaam. Before then, clearing of paper-based instruments was purely on bilateral arrangements.

There had been no “free” financial markets<sup>1</sup> until 1993 when Treasury Bills started to be traded in a primary “free” market using the physical script. This is explained in detail in Section 4.2 (a).

There has been no comprehensive unified law governing payment, clearance and settlement systems.

As the existing payment systems are mainly cash based, most transactions and payments are effected outside the banking system. This has resulted in a trebling of currency in circulation over the last five years thus increasing transaction costs due to immobility and costs of printing and distribution. Currency distribution is done through central bank branches and custody centres within commercial bank branches.

Financial deepening<sup>2</sup> has stood at about 30% over the last five years with cash believed to account for roughly about 40% of the total bank payments followed by cheques estimated to account for about 80% of all commercial bank paper based payments in the country.<sup>3</sup>

Banking coverage of population per branch is poor with a total of 14 banks in existence. Most banks are relatively new with limited coverage. The largest bank controls about 60% of the country’s deposit money and handles approximately 80% of the total volume of cheques. Daily intra-bank cheque volume is estimated to be 50,000 items. It is the only bank with a nationwide coverage having over 130 branches up to district level. The second largest bank has 20 branches, all at a regional level, while other banks only have one to three branches, mostly concentrated in Dar Es Salaam.

Interbank clearing is manual with netting at end of day for settlement via clearing accounts held at the Bank of Tanzania (BOT). Comprehensive clearing rules exist. Interbank clearing in the cities within clearing houses latitudes is done in 3 days and a maximum of 28 days for remote clearing. The actual effect on customer accounts varies from 5 to 30 days or more depending on bank procedures.

Some banks use S.W.I.F.T. mainly for international funds transfer. While S.W.I.F.T. transfers can take up to 3 days before the beneficiary’s account is credited other means such as telegraphic transfers can take weeks before the Tanzanian shilling cover is provided, even after payment has been cleared.

Tanzania launched a payment systems modernisation project in August 1996. Its primary objective is to modernise the country’s payment, clearing and settlement systems in order to attain internationally acceptable best practices by decreasing risks and increasing convenience, affordability and timeliness of the systems. The other objectives are: to improve macro economic management

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<sup>1</sup> In the sense that before then, dealings in the money market were based on Government determined rates.

<sup>2</sup> Defined as M2/GDP.

<sup>3</sup> Nonetheless, it is possible that payment statistics are substantially under-recorded since many transactions are conducted in the informal sector.

capabilities; speed up exchange and settlement of funds and securities; and to migrate, in the long term, from cash to cash-less modes of payment.

Also along with this project are improvements which are currently in the implementation stage. These are: document processing using MICR technology; interbank communication network using the Bank of Tanzania backbone; media exchange processing using diskettes for bulk recurring payments; and transmission of domestic secured payment instructions using S.W.I.F.T. architecture.

There are factors that have contributed favourably to the process of modernisation which include: the country has been undergoing major political and economic reforms over the past decade; the financial sector and markets are being liberalised for both private and foreign investments; the fact that the current legal framework is rather fragmented and outdated, fraught with inadequacies and incapable of regulating the National Payment Systems; the public need for efficient payment systems to serve a new market economy; and the Bank of Tanzania management commitment to the project and a dedicated project team working on full time basis and in coordination with other Southern Africa Development Community (SADC) countries.

## **1. INSTITUTIONAL ASPECTS**

### **1.1 General legal aspects**

There is no general legislation governing the payment systems in Tanzania, though the Bank of Tanzania maintains a close involvement in supervision and regulation. English/common law is the origin of the law in Tanzania, while the following is the key legislation, which directly touches on payment systems.

#### **(a) *The Bills of Exchange Ordinance, Cap. 215***

The Bills of Exchange Ordinance, Cap. 215 is a statute in pari materia with the Bills of Exchange Act, 1882 of the United Kingdom.

#### **(b) *The Evidence Act, 1967***

The Tanzanian evidence law has its origin in India and the United Kingdom. Part IV of the Evidence Act, 1967 provides for Bankers Books Evidence.

#### **(c) *The Banking and Financial Institutions Act, 1991***

The Banking and Financial Institutions Act, 1991 (BAFI) was enacted to consolidate the law relating to the business of banking, to harmonise the operations of all financial institutions in Tanzania.

#### **(d) *The Bank of Tanzania Act, 1995***

The purpose of this Act was to repeal and re-enact the Bank of Tanzania Act, 1965 so as to provide more definitively the regulatory and supervisory powers of the Bank of Tanzania over other banks and financial institutions. (For a fuller description of this, see Section 1.3.)

#### **(e) *The Cheques Act, 1969***

The Bills of Exchange Ordinance, Cap. 215, largely governs the use of cheques. The Cheques Act provides for the protection of bankers in relation to transactions concluded through payment by use of cheques and other related instruments.

**(f) *The Bankruptcy Ordinance, Cap. 25***

The Ordinance regulates individuals' and partnerships' insolvency proceedings. However, the ordinance is inapplicable to body corporates like banks.

**(g) *The Capital Market and Securities Act, 1994***

The Capital Market and Securities Act, 1994 was enacted to promote and facilitate the development of an orderly, fair, efficient capital and securities market in Tanzania.

**(h) *The Fair Trade Practices Act, 1994***

The Act encourages competition in the economy. It prohibits restrictive trade practices, regulates monopolies and their concentration of economic power and prices. The Act is also intended to protect the consumer against alltrade malpractice and also provides for other related matters.

**(i) *The Government Loans, Guarantees and Grants***

The Act was enacted to revise and consolidate the written laws relating to loans raised and guarantees given by the government and to provide for the acceptance of grants made to the government and for matters connected therewith and incidental thereto.

**(j) *The Arbitration Ordinance Cap. 15***

The ordinance governs arbitral proceedings referred to the Arbitrators but otherwise triable by the High Court.

**(k) *The Contract Ordinance, Cap.433***

The Ordinance provides for most of the principles of contract law.

**(l) *The Companies Ordinance, Cap. 212***

The Ordinance regulates activities and affairs of all companies incorporated and or registered to do business in Tanzania. It further provides for the winding up procedures of companies incorporated under it.

**(m) *The Civil Procedure Code, 1966***

The Civil Procedure Code is a procedural law which proscribes procedures for disposal of civil suits instituted in the High Courts and courts subordinate thereto (Resident Magistrates and District Courts). It provides for procedures through which the court can restore a right to an aggrieved citizen.

**(n) *The Penal Code, Cap.16***

The Penal Code codifies criminal offences and provides for punishments thereof. The code makes it an offence for a person to obtain money or credit by cheque without having sufficient funds.

**(o) *Transfer of Business (Protection of Creditors) Ordinance, Cap. 398***

This ordinance is intended to protect creditors and even in the event that a debtor, who is a body corporate, intends to transfer either wholly or substantial part of its business to another person/or body corporate.

## 1.2 Role of financial intermediaries that provide payment services

Two broad categories of financial intermediaries in the banking system exist, namely: commercial banks and non-bank financial institutions. Their number, as of August 1997, subdivided into local and foreign institutions, are given in the following table:

Institutions	Total number	Local owned	Foreign owned
Commercial banks.....	14	6	8
Non-bank financial institutions.....	13	11	2

### 1.2.1 Commercial banks

These are deposit money banks that incur liabilities in the form of deposits payable on demand and transferable by cheque or otherwise in making payments. They lend and provide other banking services, including payment services, to the public. The 14 licensed commercial banks have approximately 170 branches.

For the year ended June 1996, commercial banks' credit to all sectors of the economy declined by Tanzania Shilling (TZS) 136.1 billion, or 50.2%, when compared with the previous year. On the other hand, within the same period deposits, excluding house accounts liabilities and Government deposits, increased by TZS 72.1 billion or 13.7%. Foreign currency deposits continue to dominate the increase in commercial banks deposits, accounting for 39.3% of the recorded growth in deposits. Time deposits accounted for a mere 10.8%, while Savings and Demand Deposits, contributed 31.2% and 18.7% respectively.

Membership of the Clearing House is restricted to commercial banks while other non-bank financial institutions which are also deposit taking institutions participate in the clearings via agency agreements with member banks.

### 1.2.2 Non-bank financial institutions

These are grouped into deposit and non-deposit taking financial institutions.

#### (a) Deposit taking institutions

They are deposit taking but incur liabilities in forms other than demand deposits, say time and savings deposits. Also they mobilise deposits, offering various types of deposit schemes (in Tanzanian Shilling and foreign exchange); providing banking services (other than cheque accounts) and participate in money market operations. For example, Tanzania Postal Bank, which is popular for small value savers, uses Tanzania Posts Corporation offices on agency agreement to service remote parts (including rural areas) of the country.

#### (b) Non-deposit taking institutions

These can be grouped as follows:

- institutions offering leasing and hire purchase services - this service had been monopolised by one state-owned company until the Banking and Financial Institutions Act of 1991 was enacted, then other companies started to compete;
- institutions offering development finance - these provide long-term finance to the public and private sector in the form of loans for medium to large-scale investment. Due to stiff



competition from commercial banks these institutions are planning to become merchant banks;

- institutions offering pension funds and insurance services - the most active of all groups in terms of outreach, volume and frequency of payments. They include:

**(i) Pension funds**

National Provident Fund (NPF) - with branches in all regions acting as collecting centres for statutory pension collections from all salaried non-parastatal employees. Parastatal Pension Fund (PPF) has neither branches nor any operations outside its Dar Es Salaam head office. It caters for parastatal employees only.

**(ii) Insurance companies**

One insurance company, the National Insurance Corporation (NIC), has the sole monopoly with collection and payment centres throughout the country. A bill has, however, been passed to allow introduction of private insurance and a review of the pension structure is in the pipeline.

**1.2.3 Other institutions that provide payment services**

They are grouped into four major categories.

**(a) Bureau de change institutions**

They provide a retail foreign exchange market. As non-bank currency shops, they are not allowed to participate in the Interbank Foreign Exchange Market.

**(b) Sundry institutions**

They offer auxiliary intermediation or support services to the national payment systems. For example, Tanzania Posts Corporation which, in addition to its traditional postal services, provides payment services through: postal mail transfers and local postal telegraphic transfers. Tanzania Posts Corporation has about 200 outlet offices throughout the country.

**(c) Savings and Credit Co-operative Societies (SACCOS)**

These are primarily small member-owned societies of cooperative movements that are active in some parts of the country. About 450 SACCOS are in operation in Tanzania. They are potential intermediaries between the banking sector, the rural areas and micro-businesses.

**(d) Non-government organisations**

Primarily societies of cooperative movements that mobilise and allocate untapped financial resources. Due to their limitation in scope and finance they target certain groups of people fitting into their scope of operation.

**1.3 The role of the central bank**

The Bank of Tanzania (BOT) Act, 1965 and its 1995 update spell out that the BOT is empowered as a central bank with the primary objective to formulate and implement monetary policy, directed to the economic objective of maintaining price stability over time. The Bank has also subsidiary functions that include currency issuance, bankers' bank, Governments' bank, the advisor to

the Governments,<sup>4</sup> the guardian of the country's international reserves, supervision of banks and financial institutions and promotion of financial development.

### ***1.3.1 Currency issuance***

The Bank has the sole right to issue notes and coins in Tanzania. The stocks of note and coins are distributed through Bank of Tanzania headquarters, its 4 branches and 6 safe custody centres at various commercial bank branches which were established under agreements.

### ***1.3.2 Payment services***

The Bank provides central clearance and settlement facilities for interbank transactions.

The Bank of Tanzania accepts deposits to act as prudential reserves for commercial banks (i.e. the minimum reserve); discounts commercial and government paper; and has the commitment to act as lender of last resort to these banks.

The Bank is also the banker and the fiscal agent for the Governments. The Bank may make temporary advances to the Governments through its overdraft facility, subject to repayment within 180 days and through purchases (direct or rediscounting) of Treasury Bills issued by the Governments, which mature not less than 12 months from the date of issue.

The Bank is the depository of the official external assets of Tanzania, including gold and foreign currency reserves. Guarding international reserves may imply the determination of buying and selling rates of gold and foreign exchange in foreign exchange markets and/or the buying and selling of reserve assets for the purpose of sustaining the national currency's external value.

### ***1.3.3 Advice to the Governments***

The Bank may advise the Governments on matters relating to its functions, powers, duties, the credit condition in Tanzania or proposing measures and transactions relating thereto.

### ***1.3.4 Supervision of banks and financial institutions***

The Bank insures that commercial banks and other financial institutions conduct their business on sound prudential basis and according to the various laws and regulations in force. It includes the supervision of banking conduct and the licensing of financial institutions in accordance with the Basle Committee recommendations.

### ***1.3.5 Promotion of financial development***

The Bank has a responsibility to establish an effective financial system. In this respect it has to facilitate advanced clearing and transfer systems and the availability of necessary banking services, for example, deposit facilities and loan facilities, availability of certain specialised institutions<sup>5</sup> and facilitation of a money market, a capital market and a foreign exchange market.

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<sup>4</sup> The United Republic of Tanzania contains the Union and Zanzibar Governments.

<sup>5</sup> Which could be represented, for example, by an industrial development bank and/or an agricultural development bank and micro-finance institutions.

## **1.4 The role of other private and public sector bodies in payment systems**

Other entities that play a role in the Tanzania payments system include those that provide specialised clearing services, setting National Payment Systems policies and accounting standard-setting or rule-writing functions.

### ***1.4.1 Bankers clearing houses***

Three Bankers Clearing Houses situated in three major cities were introduced in 1993, 1996 and 1997 respectively. Membership is limited to licensed commercial banks. Their main role is to facilitate the clearance of interbank instruments, principally cheques.

### ***1.4.2 Tanzania Institute of Bankers (TIOB)***

Its main role is to act as a regulatory and disciplinary body for banking professionals and conduct all bankers professional research and examinations. Membership is restricted to corporate members (commercial banks and financial institutions as indicated in 1.2) and individual members from the corporate members.

### ***1.4.3 Tanzania Bankers Association (TBA)***

TBA is an association of banks for safeguarding matters of common interest to members (all licensed deposit taking banks). It is the owner, manager and operator of the clearing houses.

### ***1.4.4 The Advisory Council of the National Payment Systems (NPS)***

It is an apex body for decision-making on issues pertaining to payment systems. Its members are heads of all NPS stakeholders.<sup>6</sup> The council has 4 working level committees dealing with Standards, Operations, Legal-Regulatory and Automation issues pertaining to payment systems.

### ***1.4.5 The National Board of Accountants and Auditors (NBAA)***

An authority and regulatory body for accounting and auditing standardisation.

## **2. SUMMARY INFORMATION ON PAYMENT MEDIA USED BY NON-BANKS**

### **2.1 Cash payments**

The Bank of Tanzania currently issues notes in 7 denominations; TZS200, TZS500, TZS1,000, TZS5,000, TZS10,000, TZS20 and TZS10. As of June 1996, total notes in circulation was 2.6%, 9.7%, 27.9%, 20.9%, 37.6%, 0.2% and 0.0% respectively in terms of percentages. Proportion of notes in relation to value of total currency in circulation was 98.2%.

The Bank also issue coins in 10 denominations: -/05, -/10, -/20, -/50, 1/-, 5/-, 10/-, 25/-, 50/- and 100/-. As of June 1996, the percentage of total coins in circulation was 0.2%, 0.1%, 0.9%, 1.1%, 4.0%, 9.7%, 16.8%, 20.3%, 0.3% and 46.7% respectively. Proportion of coins in relation to value of total cash in circulation was 1.8%.

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<sup>6</sup> These are all heads of banks and non-bank financial institutions.

During the year ended June, 1996, the extended broad money (M3)<sup>7</sup> recorded a growth rate of 16.3%, while broad money (M2)<sup>8</sup> was 14.4% and narrow money (M1)<sup>9</sup> was 13.4%.

The usage of cash relative to other payments over the past five years has diminished insignificantly. There were no significant developments of other cash payment substitutes, e.g. plastic payments, during the period.

## **2.2 Non-cash payments**

### **2.2.1 Credit transfers**

Banks effect transactions for credit transfer systems using telegraphic transfers (TT) and mail transfers (MT). Fund transfers through telegraphic transfers are relatively reliable and faster for intrabank or interbank transactions. Coded telex messages perform the transfers. Transfers through mail transfer are popular for local inter-branch payments and non-local payments where telecommunications is not available or is unreliable.

Two options are available:

- the originating bank branch communicates through its head office, which communicates with the head office of the receiving bank before the transfer is effected to the respective branches; or
- the paying bank submits a banker's payment cheque, draft or clearance transfer vouchers which may contain funds for a number of payees with attached breakdown instructions to an agent bank head office.

On receipt of the instrument, an agent bank transfers funds directly by a TT or MT to its branch at the destination. The agent bank presents the item at the local clearing house for settlement purposes.

The main users of the credit transfer mechanism are corporate customers and banks with customers in places where the paying bank has no branch.

### **2.2.2 Cheques**

The usage of cheques is increasing slowly. In 1994, the Dar Es Salaam Clearing House (DBCH)<sup>10</sup> cleared about 415,000 items for a total value of about TZS 828bn. On a daily basis this works out to about 1800 - 2000 items for a value of TZS3.5 - 4.0bn. Currently, there are three clearing houses estimated to clear between 2,000 - 2,500 items per day.

Only commercial banks that maintain current accounts with the central bank and the central bank are allowed to issue cheques.

The low level of confidence in cheques, particularly in private transactions, is due to several reasons. Key amongst these are the problem of issuing cheques without sufficient funds<sup>11</sup> in

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<sup>7</sup> Extended Broad Money - defined as a sum of Broad Money (M2) and foreign currency deposits.

<sup>8</sup> Broad Money - defined as sum of Narrow Money (M1), time deposits and savings deposits.

<sup>9</sup> Narrow Money - defined as sum of currency in circulation outside banks plus demand deposits.

<sup>10</sup> The first clearing house to be introduced in the country in 1993.

<sup>11</sup> Although the Penal Code, Cap. 16 of the laws of Tanzania declared this a criminal offence, its enforcement has proven to be cumbersome.

the account and delays in the clearing system - it takes up to 28 days or more in remote parts of the country (it used to be months) - which increases the chance of fraud and forgery.

However, the paper cheque remains the most frequently used non-cash payment instrument in Tanzania. The majority of cheques are written by businesses for corporate, salary and pension payments. Generally, few individuals write cheques mainly because personal cheques are normally not accepted due to, among other reasons, the absence of unique identification.

### **2.2.3 Direct debits**

Some banks provide direct debit services to their customers by use of “Standing/Bankers orders”. This service is not common and is limited for intra-bank transactions. However, some customers use it for recurring loan repayments, insurance premiums, water and electricity bills payments, house rents and hire purchase instalments. The total number of direct debit transactions per any given time cannot be determined with any reasonable degree of confidence.

### **2.2.4 Payment cards**

Plastic cards are not issued for local payment use by the banking industry nor by non-bank financial institutions. However, there are utility organisations issuing prepaid cards for bill-paying services including: payment of electricity bills (using a “pay as per your electricity consumption” pre-paid card) introduced in 1996 by an electricity company and payment of phone bills by magnetic stripe cards introduced by telecommunications companies.

### **2.2.5 Other payment instruments**

There are a number of other payment instruments issued by some banks. These include:

#### **(a) Banker’s payment cheque**

Usually drawn by banks on themselves to settle their obligations. Customers (even the Government) of the bank may apply for banker’s cheques in order to make payments under special arrangements. Customers pay commission for using the services of banker’s cheques.

#### **(b) Promissory notes**

The applicant signs a promissory note undertaking to make the payment on due date. However, to effect payment, the signatory can issue a cheque, give a mandate for his account to be debited or even deliver cash to the bank to meet his obligation.

#### **(c) Travellers cheques**

One bank issues its own local travellers’ cheques in different denominations. It clears them like any other intra-bank cheque. The traveller’s cheques are drawn on the bank’s head office with its branches acting as selling agents that remit the proceeds to the head office. The travellers’ cheques are sent to head office by courier when encashed by a branch. Other banks handle international traveller’s cheques only.

### **3. PRESENT INTERBANK EXCHANGE AND SETTLEMENT**

#### **3.1 General overview**

Generally, all interbank payments are first cleared between banks locally, usually through either bilateral agreements<sup>12</sup> or a local clearing house, before being cleared and settled between non-local branches of the same bank via intra-bank clearing mechanism.

Practically, the interbank clearing can be grouped into two separate major sub-systems: local clearings - within clearing house localities and non-local clearance - between up-country<sup>13</sup> branches (where there is no clearing house).

Dar Es Salaam Bankers Clearing House (DBCH) was established in July 1993. It was the first clearing house in the country, with the objective of, amongst others, making arrangements for the speedy and economic collection of cheques, bills and other documents payable or deliverable at or through the offices of the members of the clearing house. It has a comprehensive set of rules which adequately describe the procedures for clearing cheques throughout the country in equitable terms. Later two more clearing houses were established, in 1996 and 1997 respectively. All are bound by the same rules as for the DBCH. All clearing processes in clearing houses are manual.

Within the city or town where a clearing house is situated, the rules provide for an exchange of cheques each morning at the clearing house. These facilities are located in the Bank of Tanzania premises. The rules allow 3 days clearing in the cities and a maximum of 28 days for remote clearing. Settlement is on multilateral net basis over banks' current accounts at the Bank of Tanzania at the end of day.

There has been a general decline in use of DBCH in terms of average daily number of cheques being cleared. On the other hand, the total value of all cheques being cleared each day, on average, has been increasing modestly, as has the average value per cheque. The net settlement, on average, reduces by about 56% the total value being netted. In these cases the concentration of deposits of one bank is not as large as those controlled by the biggest bank in the country.

#### **3.2 Structure, operation and administration**

##### ***3.2.1 Major legislation, regulation and policies***

There is no specific legislative framework governing the operations of the Tanzania payment systems in general nor is there legislation for clearing and/or interbank settlement.

The instruments mostly handled through the clearing houses are cheques, drafts, mail transfers and other bills of exchange. They are subject to the provisions of the Bills of Exchange Ordinance, 1882 and the Tanzania Cheques Act, 1969.

The operations of all interbank clearings are subject to regulations and rules set by members, through the Tanzania Bankers Association and the Bank of Tanzania. Membership of the clearing houses is open to any bank which, in the opinion of the Bank of Tanzania, is eligible for membership and agrees to the regulations and rules governing the operations of the clearing house.

The administrative body of the clearing houses is the Committee of Management consisting of the Governor or Deputy Governor of the Bank of Tanzania (ex-officio chairman) and all the managing directors of commercial banks who are members of the clearing houses.

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<sup>12</sup> In regional towns where there is no clearing house, banks have designated branches where they meet to exchange instruments bilaterally.

<sup>13</sup> Up-country for this purpose means remote parts of the country, i.e. away from clearing house localities.

Any new bank licensed thereafter becomes a member of the clearing house by applying to the Bank of Tanzania using a special form. The application for membership is discussed and decided at the next meeting of the Committee of Management whose decision is final.

### ***3.2.2 Participants in the clearing and settlement system***

Fourteen banks, including the Bank of Tanzania, are currently settlement members of the clearing houses. They forward the clearing instruments to the clearing house through their central accounting/clearing departments.<sup>14</sup> The practice is that bank branches do not directly participate in interbank clearing; they pass their instruments through their clearing departments, which are situated in the head offices of each bank in Dar Es Salaam.

All other non-bank financial institutions participate in the clearing arrangements through commercial banks.

### ***3.2.3 Types of transactions handled***

Only interbank transactions as described in the rules and regulations for the clearing houses are handled in the clearing houses, these include: cheques, drafts, mail transfers, clearance transfer vouchers, direct debits and sight bills of exchange.

Banks maintain at the Bank of Tanzania the following accounts: Local Currency Current account (clearing account), a United States Dollar (USD) account and Statutory Minimum Reserve (SMR) account. There are also separate accounts for government securities held by banks and on behalf of their customers.

### ***3.2.4 Operation of the transfer systems***

#### ***(a) Local clearings***

Within a clearing house area, rules provide for an exchange of cheques each morning between 10.00 a.m. and 10.30 a.m. at the clearing house. Upon completion of the exchange, a multilateral net settlement position is manually calculated and the banks are notified of their net positions, usually by 11.00 a.m. Posting the net positions to the current/clearing account at the Bank of Tanzania is at end of day. Rules also provide for special collection of items after clearing through a bilateral arrangement. The maximum number of days for local clearing is three days.

#### ***(b) Non-local clearance***

Instruments originating from up-country are sent through courier services to the central accounting departments of each bank in Dar Es Salaam where preparation of new schedules are done and sent to the Dar Es Salaam Clearing House. The number of days taken for these instruments is guided by regulations governing the clearing houses. The maximum number of days ranges from 14 days between regional centres and 28 days for remote areas of the country.

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<sup>14</sup> Banks with several branches have a centralised accounting department used for control purposes, including liquidity management. So all branch items must pass through these departments.

There are two options for clearance of instruments from branches located in two different up-country towns: one is for the instrument to be passed through the central clearing departments (as explained above); or alternatively, for it to pass directly to the regional branches provided a bilateral clearance agreement exists.<sup>15</sup>

### **3.2.5 Transaction-processing environment**

Clearing processing is purely manual. Members drive or walk to the clearing house with physical instruments, exchange the instruments and leave settlement certificates. There is no automation in the clearing house.

### **3.2.6 Settlement process**

Settlement of interbank instruments is done each day after the clearing session on a multilateral netting system using accounts in the central bank. Settlement for cheques, bank transfers, and interbank foreign exchange market transactions is as follows:

#### **(a) Cheques and bank transfers**

After exchange of physical cheques at the clearing house:

- the clearing house supervisor announces the balancing of the clearing work and representatives of members prepare debit/credit settlement certificates. The settlement certificates authorise the Bank of Tanzania either to debit or credit the representative bank's account at the Bank of Tanzania.
- on the same day at 3.00 p.m. posting of settlement balances is done after all the necessary approvals are obtained, the banks previous day positions are determined, and up-country banks' balances are received through "Items in Process of Collection (IPC)"<sup>16</sup> bags from other Bank of Tanzania branches.
- members of the clearing house are required to maintain a credit balance with the Bank of Tanzania at the close of each working day. In the case where a member fails to maintain a credit balance, then the member is required to pay penal interest at the rate applicable to overdrafts plus 2% a day. In addition, the account should be fully covered not later than the next clearing otherwise the member is automatically excluded from clearing house until its balance position is in credit.
- all commercial banks with more than one branch have centralised their clearing account so as to reduce demand on bank reserves for management control and treasury utilisation efficiency.

#### **(b) Interbank Foreign Exchange Market (IFEM)**

Dealing is done by phone or other means agreed by the parties. On concluding a deal, the mode of payment is contracted as indicated in the deal confirmation slip.

Each party originates a confirmation slip to the counter-party with a copy sent to the Bank of Tanzania where they are immediately recorded and matched. The parties must also issue instructions to their correspondent bankers for payments to be made. The normal terms and conditions

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<sup>15</sup> In case the two banks involved in clearing have branches in that town.

<sup>16</sup> A special bag from different branches of Bank of Tanzania carried every day to and from head office by Expedited Mail System courier services.



are based on the IFEM dealers' code of conduct and guidelines. The value date is normally T+2 and must be specified by both parties on both currencies.

### **3.2.7 Pricing policies**

A fee, which a member bank charges its indirect clearing house participant or customers, is negotiated between the parties concerned. Banks do not have to pay any entry fees nor per item fees for the use of the clearing houses. All costs are subsidised by the central bank.

### **3.2.8 Credit and liquidity risks**

In Tanzania, four parties are involved in clearing and settlement systems: customers, commercial banks, clearing houses and the Bank of Tanzania. Each party carries certain responsibilities and bears certain risks.

#### **(a) Customer liquidity/credit risk (commercial banks vis-à-vis customers)**

Cheques remain the main instrument in the clearing houses. Cheques issued without a sufficient balance in an account expose a collecting bank to liquidity risk and in some cases even credit risk, as the payer's bank will normally not honour that cheque. Items not received back by the collecting bank within such a time as has been mutually agreed by members to the clearing procedures are considered paid and the customer gets credit.<sup>17</sup> Unfortunately, this does not guarantee the fate of that cheque.

#### **(b) Interbank credit risk (member banks vis-à-vis each other)**

Because of the concentration of business in one major bank (having more than 60% of volume of items in each clearing house and over 90% of all payments volume in the country), other banks rely heavily on this bank's participation when clearing interbank payments. Since there is no guarantee of payment finality until the settlement process is finalised, its use to settle large volume and high value payments increases concern about credit risk which in turn may have systemic risk implications.

The clearing house rule as explained in 3.2.6 (a) which requires members to maintain a credit balance at the end of each working day aims at reducing such risks but it is impractical to expel such a large bank under present circumstances.

#### **(c) Liquidity risk (member banks vis-à-vis the Bank of Tanzania)**

The current multilateral net settlement using central bank accounts is satisfactory in that it substantially reduces the level of intraday liquidity required by clearing house participants. However, given that the role of the central bank is primarily as supervisor and settlement agent for the clearing house, such an arrangement exposes the central bank to settlement risks as it implicitly guarantees finality of outgoing payment. The resulting intraday credit expansion thus exposes it to considerable risk from the unsecured overdrafts which emanate from operational procedures governing settlement.

If it happens that a bank is excluded from the clearing house, there are no rules existing to protect the Bank of Tanzania's money after automatic exclusion of the bank from the clearing house. The situation is further aggravated given that there are no bilateral and/or multilateral limits for

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<sup>17</sup> The time differs from one area to another ranging from 3 to 28 days.

which a participant may be liable (i.e. on gross amounts); nor, are there any loss sharing agreements or a pool of collateral to guarantee settlement. At a minimum, this implies that the Bank of Tanzania guarantees settlement for at least one day and then prohibits the bank from participating when the bank's current account is overdrawn. Therefore, at least some moral hazard and liquidity risks that may pose systemic risk exist.

In some events the central bank advises the commercial banks, by different means including phone, on their current and reserve account positions before the clearing session commences. The banks, however, collect printed papers on their position before the next clearing session.

#### **4. SPECIAL USE OF INTERBANK TRANSFER SYSTEMS FOR INTERNATIONAL AND DOMESTIC FINANCIAL TRANSACTIONS**

##### **4.1 Exchange and settlement systems for international transactions**

###### **4.1.1 General overview**

A large number of banks in Tanzania are international, in that out of 14 commercial banks currently licensed to operate in Tanzania, 8 Tanzania-incorporated banks are subsidiaries of foreign banks.

International funds transfers of large value are mainly effected through correspondent banking relationships. However, there are no uniform correspondent banking arrangements in the banking industry. There is no exchange control in Tanzania.

The main means of sending payment instruction to correspondent banks abroad is by telex messages or S.W.I.F.T. where available (at end-1997 only five banks had S.W.I.F.T. capability although most were planning to join in 1998). Where payment instructions are quoted in a currency other than that maintained with a correspondent bank, the currency has to be bought at an agreed rate. In such a case the local bank may instruct a bank abroad to make the payment on its behalf and the correspondent bank to reimburse the equivalent. Some payments are also made by bank drafts to customers.

There is monetary cooperation in East Africa, where Kenya, Uganda and Tanzania shillings are traded in a similar manner as other major foreign currencies. The respective central banks provide weekly information on transactions in the regional currencies.

Commercial banks with no correspondent relationship in the region can periodically repatriate excess regional currency holdings to their respective central banks for conversion into local currency. Central banks thereafter repatriate their holdings to the respective central bank in exchange for US dollars.

###### **4.1.2 Retail transactions**

Foreign currency cash and traveller's cheques are the main instruments by which retail cross-border retail transactions are effected. These cheques are of two major currencies: pounds sterling and United States dollars.

### **4.1.3 Foreign currencies trading**

Major currencies traded include United States dollars, pound sterling, Ugandan shilling, Kenyan shilling, South Africa rand and Unit of Account for Preferential Trade Area (UAPTA) dollars.

## **4.2 Exchange and settlement systems for securities transactions**

This section looks at the operations of the Tanzania securities markets, with particular reference to the links between securities transfer and payment systems. Currently, the only active domestic financial market is that of Government securities. The Bank of Tanzania, as agent to the Governments, is charged with the task of issuing stocks, bonds and treasury bills.

### **(a) Money markets**

Dealings in the money market by the Bank of Tanzania are yet to be fully developed. A free market is only beginning to emerge. Money market operations are effected by the Bank of Tanzania using one instrument, namely Treasury bills. Treasury bill auctions which began in August 1993 are held weekly (Wednesdays) on a multiple price system basis. The auctions, which are presently open to individuals, groups or institutions, are announced four days in advance of the auction dates. Ownership is evidenced through physical certificates, which can be re-discounted at the Bank of Tanzania provided they mature within 180 days from the day of re-discounting by the Bank of Tanzania. Efforts are underway to introduce a book entry system, which will dematerialise the scrip and allow for instantaneous delivery versus payment. The book entry system will facilitate secondary market trading which is still at a nascent stage. Currently delivery and settlement of treasury bills is two days (T+2) as follows: T+0 (Wednesday): Treasury Bills auction is done and announced; T+1 (Thursday): payments by bankers cheque or bank transfer instructions are received and entries are passed accordingly; and on T+2 (Friday): cheques are sent for clearing and certificates are prepared but not released until after credit has been effected or the clearing period has elapsed without the cheque being returned.

### **(b) Capital markets**

The capital market in Tanzania can be described as an “emerging market”. Bank financing and government subsidies have for along time been a source of finance for state corporations and companies. There is a noticeable absence of publicly owned companies (i.e. companies allowed to invite subscriptions from the public). Many companies are private, i.e. companies whose right to transfer shares is severely limited. The number of securities is limited, with government debt instruments being the only securities in the market (stocks treasury bills and bonds). Pension and provident funds are the only major collective investment schemes and there are no unit trusts.

In the transition of the country’s economy from a “planned” economy, dominated by parastatal enterprises, towards a “market” economy, where the private sector is expected to play an increasingly important role, the Capital Markets and Securities Act was enacted (refer section 1.1). As a result the first stock exchange has just started operations in Tanzania.

### **(c) The foreign exchange markets**

Tanzania introduced the Interbank Foreign Exchange Market (IFEM) in 1994, initially conducted on an open outcry basis, with authorised dealers assembled at the Bank of Tanzania. The Bank of Tanzania supervised the daily sessions by inviting offers and bids and awarding deals at the highest bid. Telephone dealing was later introduced in May 1996. Authorised dealers are now considering introducing electronic dealing.

The mode of payment is agreed as stated in the contract and indicated in the deal confirmation slip. Either a Bank of Tanzania transfer, cheque or bankers payment (which are cleared and settled like any other cheque in the clearing houses) effects payment.

In the case where transfer is through current accounts maintained at the central bank, entries are passed on due date by debiting or crediting the respective bank's local currency accounts. Where payment also involves US dollars, the dollar accounts are debited or credited accordingly.

Bureaux de change and banks cater for the retail market in which individuals and businesses satisfy their foreign exchange requirements.

## **5. THE ROLE OF THE CENTRAL BANK IN INTERBANK SETTLEMENT SYSTEMS**

### **5.1 General responsibilities**

#### **5.1.1 Statutory responsibilities**

There is no specific legislative framework governing the operations of the Tanzania payment clearing systems, nor does the Bank of Tanzania have any statutory responsibilities in connection with them. The Bank's interest in the quality of these systems stems from its various core responsibilities as a central bank.

Firstly, the primary objective of the Bank is to establish monetary conditions conducive for price stability over time. As the ultimate provider of liquidity in the financial sector it presupposes efficient and reliable payment, clearing and settlement systems that serve the financial markets effectively.

Secondly, the Banking and Financial Institutions Act of 1991 gives the Bank other responsibilities. These include: ensuring implementation of prudential controls concerning capital adequacy, liquidity, concentration of credit, risk diversification and modification/monitoring of the minimum reserve requirements and foreign exchange exposure. Hence the Bank has particular interest in credit and liquidity risks that may result in systemic crises - incurred by the banking industry, financial institutions and their customers participating in the clearing and settlement systems.

Thirdly, being the bankers' bank, it accepts deposits of prudential reserves for the commercial banks, discounts commercial and government paper, has the commitment to act as a lender of last resort to the banks and, most significant in this context, is the settlement agent to these banks. It is therefore very much exposed to the banks via the clearing system.

Fourthly, the Bank has a responsibility of establishing an effective financial system so that financial transactions necessary for the smooth functioning of the economy can be carried out with minimum costs, risks and the amount of time involved. In this connection, the Bank facilitates the development of advanced clearing, transfer and settlement systems.

Fifthly, the Bank provides and supervises central clearance facilities for interbank transactions through its three branches.

#### **5.1.2 Establishment of common rules**

The Bank in collaboration with Tanzania Bankers Association established and regularly reviews the rules and regulations governing clearing houses and money markets. Except for the accounting standards set by the National Board of Accountants and Auditors, no other rules, standards or procedures have been set on payment systems by other organisations.

## **5.2 Provision of settlement and credit facilities**

### ***5.2.1 The provision and ownership of settlement facilities***

The central bank provides current accounts used for settlement by institutions participating directly in the clearing house. Any licensed commercial bank can open a current account by right. Non-bank financial institutions do not have this right. These accounts are non-interest bearing and all banks are required to maintain an overnight credit balance.

All banks are required to keep a Statutory Minimum Reserve (SMR) for prudential and monetary policy purposes. The SMR ratio is pre-determined and monitored by the central bank. It is currently 10% of total bank deposits (excluding foreign currency deposits). The SMR account is not used for settlement.

Banks also maintain current accounts at the central bank. These are used for interbank settlement of Tanzanian shilling and United States dollar, purchases and sale of securities and withdrawals and deposit of cash. The central bank receives and honours different types of payment instructions on these accounts. Pre-checking of balances prior to settlement is normally done with reference to the beginning of the day balances.

### ***5.2.2 Role in interbank settlement***

As explained in Section 3.2.6, interbank settlement for local currency is done daily on a multilateral netting system using current accounts held at the central bank. It involves cheques, bank transfers arising from interbank money market transactions and any other payments involving Tanzanian shillings (e.g. sale or purchase of securities, dollars, repurchase agreements, etc.). After the clearing session, settlement certificates authorise the Bank of Tanzania to debit or credit the participant's account with the Bank of Tanzania. Settlement balances are posted in the central bank after determining the participant's previous day balance position and this determines finality of payments.

The Interbank Foreign Exchange Market transactions settlement at the Bank of Tanzania currently involve Tanzanian shilling and United States dollars only despite the fact that other currencies are also traded in the market; Section 4.1.3 refers. Since the Tanzanian shilling is pegged to the dollar, the market determines the rate of exchange with other currencies using cross rates based on the dollar to Tanzania shilling rate in the commercial banks and bureaux.

### ***5.2.3 Roles in the settlement of securities transactions***

The Bank of Tanzania issues securities on behalf of the Government and on its own behalf. Entries made during sales are directly passed into the accounts of the Government's Treasury Department maintained at Bank of Tanzania. The Treasury has access to the funds credited to their accounts. The investor is paid the interest earned on due date and the principal is redeemed on maturity. Government securities can also be rediscounted prematurely at the Bank of Tanzania as a lender of last resort. All these systems were until recently manually recorded except for the treasury bills system, which has been automated since 1993.

## **5.3 Monetary policy and payment systems**

### ***5.3.1 Objectives of monetary policy implementation***

According to the Bank of Tanzania Act, 1995, the primary responsibility of the Bank is to formulate and implement monetary policy, directed to the economic objective of maintaining price

stability, conducive to a balanced and sustainable growth of the national economy in Tanzania. The goal of the Tanzania National Payment System is to enable efficient circulation of money.

To achieve price stability, the Bank of Tanzania has to regulate the money supply. A recent survey reveals that, cash accounts for about 40% of the total bank payments followed by cheques (estimated at about 80% of all commercial bank non-cash paper based payments in the country). This indicates an inefficient payments system, which is cash based with very few cash substitute instruments, especially for low value payments.

The measure of money supply over GDP (financial deepening) has stood between 30 and 40% while the share of currency in the money supply has stood at about 30% over the last five years. Payment system inefficiencies are believed to contribute in driving the population away from the formal sector.

### ***5.3.2 Instruments of monetary policy in Tanzania***

For the purpose of the National Payment System, four instruments are considered vital for implementation of monetary policy in Tanzania.

#### ***(a) Discount rate policy***

To ensure that the activities of banks continue smoothly, the central bank uses its refinancing and open market policy to accommodate banks to assist them to meet their interbank obligations. Within the framework of the refinancing policy, the BOT establishes conditions for refinancing commercial banks. The refinancing policy can be the discount policy or the Lombard policy.

Within the framework of the discount policy, the BOT buys from and sells to banks trade bills, treasury bills, and other specified securities at a rate (discount rate) set by itself. Under the discount rate policy the Bank uses one or both of a qualitative discount policy and a quantitative discount policy.

#### ***(b) Minimum reserve policy***

The base for the determination of the minimum reserves of commercial banks to be held with the Bank of Tanzania, free of interest, includes all shilling deposits, borrowing from the general public (foreign currency deposits are excluded) and vault cash. The minimum reserve ratio is uniformly applied to all banks, although according to the Bank of Tanzania Act, the ratio may differ by type of deposit.

#### ***(c) Open market policy***

While the other monetary policy instruments have been exclusively dealing with commercial banks, open market policy includes non-banks. Although the institutional framework for carrying out open market policy in Tanzania is still somewhat limited, the Bank has been resorting to treasury bill auctions, tap sales of Treasury bills and direct sales of certificates of deposits.

The proceeds from the sale of the liquidity papers are set aside in a special account created solely for monetary policy purposes and is not used to finance spending by either the government or the Bank of Tanzania.

The effect of open market operations in Tanzania has recently been enhanced substantially due to the increased amount of sterilised Treasury bills and the suspension of Government overdrafts with the Bank of Tanzania. It is hoped that the introduction of repurchase agreements (repos) will add flexibility in the provision of central bank balances to the commercial banks on short-term.

**(d) Foreign exchange interventions**

The Bank of Tanzania gradually eased foreign exchange controls after the enactment of the Foreign Exchange Act of 1991, with the establishment of foreign exchange bureaux in April 1992, introduction of foreign exchange auctions in July 1993, and the creation of the Interbank Foreign Exchange Market (IFEM) in 1994.

The country's trade and exchange system is now completely free of restrictions on making payments and transfers for current account transactions. The Government has already accepted the obligations of Article VIII of the International Monetary Fund's Articles of Agreement, in order to boost the country's attractiveness for foreign investors. The situation is being made more positive with further gradual relaxation of capital account transactions.

**5.4 Risk-reduction measures**

**5.4.1 Credit and liquidity risks**

As explained earlier in Section 3.2.6, members of the clearing house are required to maintain at the close of each working day a credit balance with the Bank of Tanzania. Otherwise a penalty or automatic exclusion from clearing exchanges may result.

As explained in Section 3.2.4 (b), commercial banks with more than one branch have centralised their clearing accounts so as to reduce demand for bank reserves obviating the need to maintain positive balances in several settlement accounts and for liquidity management purposes.

To avoid debit positions, banks get funds from alternative sources (such as interbank borrowing, discounting Treasury bills, etc.) to replenish their accounts before next settlement. The central bank advises the commercial banks each morning by phone on their current account and reserve account positions before the clearing session commences to enable them determine their positions at the end of the clearing session.

Nevertheless, the clearing-house regulations stipulate that a member should be barred from the clearing house if it fails to replenish the account before the next clearing session.

The Directorate of Bank Supervision of the BOT requires banks and deposit taking financial institutions to put forward measurement of risks assets, clarification of loans and other risks assets, provisioning for loans and accrual of interest. The BOT also released a concentration of credit and exposure limits regulation. The central bank also requires banks to adhere to the statutory minimum reserve of 10% of total deposits.

Internally, most banks have Assets and Liabilities Management Committees (ALCO) as a measure of control and monitoring liquidity.

The Penal code, Cap.16 of the Laws of Tanzania makes an act of issuing a cheque without sufficient funds in one's account a criminal offence.

**5.4.2 Cross-currency settlement risks**

The S.W.I.F.T. communication network currently used by five banks, including the Bank of Tanzania has almost eliminated the delays in settlement and the confirmation period. As such it is considered to have reduced the settlement risks associated with cross-border transactions.

**5.4.3 Operational risks**

As a control of the risks associated with fraud and negligence, the central bank requires various operational documentation before it allows a bank to operate. The manuals to be submitted are

the credit manual, the foreign exchange manual and the internal control manual. Furthermore, in the licensing process the Bank vets management staff and members of the board of directors for their integrity and background.

In the case of computerised systems failures, an immediate fall back position is the use of a manual system. Some banks have arranged for back-up systems and premises to contain such a situation. Standby generators play a significant role during power interruptions. Where communications are concerned, some banks use cellular phones, radio calls, police messages, etc.

## **6. RECENT DEVELOPMENTS IN THE PAYMENT SYSTEMS**

### **6.1 The National Payment Systems Modernisation Project**

In the light of ongoing reforms, it was felt that an efficient payment system is a necessary precondition to address both the domestic and international business needs of the economy. The project titled “National Payment System Modernisation Project” was launched in August, 1996 with the following objectives:

- to reduce payment, clearing and settlement risks by providing conditions where any payment can be made appropriately with finality and with minimum risks;
- to supply timely and accurate information on the stock and flow of funds in order to improve macro-economic management capabilities, particularly in the exercise of monetary policy implementation by the central bank;
- to speed up the exchange and settlement of funds and securities up to levels comparable with those prevailing in major industrial economies in order to reduce float and improve efficiency in the circulation and transmission of funds to leverage this for financial deepening of the economy;
- to migrate, in the long-term, from cash/cheque based modes of payment to modern modes of payment and be responsive to user needs (i.e. a secure, reliable, expandable, integrated, convenient and cost effective payment service with universal access, keeping in mind the low coverage of bank branches in the country);
- to put in place an efficient and robust legal framework capable of regulating new payment systems by considering important payment issues such as the internationally acclaimed Lamfalussy Standards and finality and irrevocability of payment and settlement. Importantly, to approach this by addressing the need to have legislation with enabling powers for the central bank to issue rules and regulations and for the encouragement of agreements between participants in the payment system. It is hoped this approach will cope with the speed with which changes are taking place in technology and business as a whole.

As short-term improvements there are several sub-projects undertaken as explained in 6.2.

So far the current laws and regulations as explained in 1.1 continue to govern the system until new laws and regulations are in place which are currently being worked out.

Participation in the new system, the types of transaction to be handled, the operation of the new system, the transaction-processing environment, settlement procedures, credit and liquidity risks management and pricing will be determined after completion of the National Payment Systems vision, strategy and conceptual design.



## **6.2 Other developments**

Some commercial banks are running home banking services dedicated to their own customers in which the customers are able to send instructions, query their accounts, print statements, etc.

Banks, through the National Payments System Modernisation project team, are undertaking short-term measures to be implemented by June 1998, which include:

### **(a) MICR document processing**

Banks are addressing the problem of processing delays in interbank cheque clearing by introducing document processing using MICR technology. This will be coupled with the Bank of Tanzania offer to handle interbank cheque instruments cleared between its branches and to rationalise the clearing procedures and rules.

### **(b) Interbank communication network backbone**

Banks are addressing the present problems of the inadequate use of interbank credit payment transfers and to minimise risks with online payment on central bank accounts by use of the central bank's VSAT backbone network between its branches. This will facilitate interbank payments through electronic settlement of credit transfers within the areas where central bank branches are located.

### **(c) Media exchange processing**

Interbank media exchange will be also be introduced for bulk payments and in place of MICR where not available. The banks will reduce the present duplication of effort and subsequent delay or errors in the processing of bulk payments, especially where these are originally derived from computer systems. It will also speed up the flow of cheques and credit transfers and dramatically cut down the labour involved in processing small value transactions and increase demand on the use of banking services in the country.

### **(d) Transmission of secured payment instructions**

Secured electronic payment instructions between branches using S.W.I.F.T. will enable high value interbank credit transfers. This may not be justifiable for smaller branches due to inadequate volumes, infrastructure and capacity (i.e. staff, facilities, controls, etc). Nonetheless, it is possible to have same day clearing and settlement between key bank branches having S.W.I.F.T. facilities if this is done in collaboration with the Bank of Tanzania branch network backbone, which has S.W.I.F.T. connectivity.

## **7. INFRASTRUCTURE**

### **7.1 Telecommunications infrastructure**

#### **(a) Telecommunications**

All communications activities in Tanzania are managed and monitored under the auspices of the Tanzania Communications Commission (TCC). The major function of the TCC is to regulate telecommunications, postal services and courier services. The commission has the mandate among other things to: issue licenses to all telecommunications service providers; approve all

telecommunications equipment; issue specifications and guidelines for telecommunications service provision; manage frequencies, issue of radio licenses for radio telecommunications operators; and to act as liaison between service providers and users/customers.

There are two basic telecommunications service providers namely Tanzania Telecommunications Company Limited (TTCL) in mainland Tanzania and Zantel in Isles Tanzania.<sup>18</sup> The TTCL is 100% owned by the government of Tanzania.

Telecommunications services have improved in urban areas following the introduction of new technology.<sup>19</sup> However, district and rural areas continue to be served by the old type of exchanges.<sup>20</sup> Available statistics indicates that the number of telephone lines remains less than one (0.7) telephone line per 100 inhabitants.

There is a transmission system<sup>21</sup> crossing the country from east to west and from north to south with connections to neighbouring countries of Rwanda, Burundi, Uganda, Malawi, Zambia and Kenya. The majority of international services are provided through two earth satellite stations in Dar Es Salaam. The two stations have adequate capacity to meet demands for this service for the next 10 years.

The TTCL is currently undertaking the Telecommunications Restructuring Project (TRP).<sup>22</sup> This project focuses on Dar Es Salaam, backbone transmission systems as well as switching and cable networks in the other regional centres. This project is almost complete. There are also spin off projects either as a result of the TRP or other development plans by the TTCL in which most district headquarters will be covered.

A number of regional headquarters can be interconnected in real time to provide on-line banking services. Other places including most districts and some rural areas can use electronic batch processing systems in place of the present paper batch processing system. Most major commercial centres are either at the tertiary or secondary exchange level which can be interconnected using trunk lines.

Places which generate over 80% of the banking business are within easy reach of the modern backbone network or have benefitted from the TRP by having new digital exchange and external plant network (wiring and cabling).

Most banks use leased dedicated lines for S.W.I.F.T. operations and dial-up lines for other business communications.

**(b) Data communications**

There are three licensed data communications operators in Tanzania. The services provided by these operators includes a state-of-the-art public data communications network based on satellite communications. There are also licensed mobile telephones as value added services. These include services for both speech and data communications in their network.

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<sup>18</sup> Its network is not yet in operation.

<sup>19</sup> Based on digital technology.

<sup>20</sup> Based on analogue technology.

<sup>21</sup> Based on microwave technology.

<sup>22</sup> The TTCL, with the support of seven donors put together a large rehabilitation and expansion of the telecommunications network worth about USD 250 Million. The project started in 1993.

## 7.2 Availability of electricity

Tanzania Electric Supply Company (TANESCO), a government owned company, dominates the electricity generation and distribution in the country.

Eighty per cent of the national installed capacity is hydroelectric power, representing a share of electricity to total energy balance of about 1%. Average per capita electricity consumption is about 60kwh/annum. The average growth rate of electricity demand is between 11% and 13% per annum. However, less than 10% of the population<sup>23</sup> have access to electricity, most of those who do are in urban areas and in some rural areas where the National Grid passes. On average, the current power tariff is 0.09USD/kWh.

At the moment TANESCO cannot fully satisfy the load demand. As a result some customers, including the banking industry, have resorted to the installation of standby generators. TANESCO is, on a modular basis, adding gas-powered power plants at Dar Es Salaam; nearing completion of an extra hydroelectric power station; building coal-fired power plants; and exploiting the international grid interconnections with her neighbouring countries of Zambia to the south-west and Uganda to the north-west.

## 7.3 Road infrastructure

Roads are the most accessible<sup>24</sup> mode of transportation in the country. The road network is comparatively far more expansive than air, railways and water bodies. Currently, only 4% of road network is paved and 18% is gravel. The rest of the road network consists of earth roads and tracks most of which are impassable especially during rain seasons.

Most of the regional town centres are connected to each other and to the business capital Dar Es Salaam with all weather roads. This however, is not the case for a greater part of the road network as it is still undeveloped, in particular the district and rural roads.

Because physical payment instruments remain important in Tanzanian payment systems and the most accessible mode of transportation in the country is road, roads are considered vital for transporting local financial instruments by courier service providers to rural areas where there is no other mode of transportation.

Considerable work to rehabilitate and upgrade roads (both track, regional and district roads) has been done under the Integrated Roads Project (IRP), phase I. Phase II was launched in 1995 and aims by mid-2000 to have about 80% of trunk roads (paved 95% and unpaved 75%) and 50% of rural roads brought up to good passable condition.

## 7.4 Economic reforms

Tanzania has been undergoing major political and economic reforms over the past decade. The Government is now being restructured while the financial sector and markets are being liberalised for both private and foreign investments. This includes foreign exchange current account convertibility, divestiture of parastatals (e.g. banks, telecommunications, electricity company), etc. These changes have positively affected the previously socialist centrally planned economic environment. For example: government owned banks have improved their financial position and supervision and hence their potential for privatisation.

Financial markets were introduced at the Bank of Tanzania with interbank money markets (Treasury bills and US dollars). A stock exchange has been set up and is now ready to start

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<sup>23</sup> Tanzania has about 30 million population.

<sup>24</sup> In terms of bulk of the total tonne-kilometres and passengers-kilometres performed by the entire transportation system.

operations. Further, the central bank is also finalising efforts to facilitate money markets with the introduction of an immobilised and dematerialised book entry Treasury bill and repurchase agreements system which may also be extended to handle other highly liquid securities.

Telecommunications are about to be commercialised, major projects for installing modern digital exchanges with micro wave links between relay stations are being implemented and four data communications service providers have been licensed. These developments have enabled some banks to set up inter-branch data communication networks so Automatic Teller Machines, Electronic Funds Transfer at Point Of Sale, etc. may soon become a reality as telecomm tariffs come down and the infrastructure improves.

Unfortunately, the changes have also had negative effects such as depriving access to banking services by closure of branches.

The transport sector is still lagging behind despite rehabilitation of some major roads and the introduction of a private air service. These difficulties hamper postal and courier service development, forcing banks to establish their own courier service networks.

The national outlook for the future is encouraging particularly with a lower rate of inflation (currently 17% from over 26% over the past 5 years). This reflects positively on the monetary and fiscal policies currently followed.

Table 1  
Basic statistical data

	1992	1993	1994	1995	1996
Population (millions) .....	25.3	26.0	26.7	27.4	28.3
GDP (millions of Shillings) .....	1,369.9	1,725.5	2,298.9	3,020.5	3,767.6
GDP per capita (thousands of Shillings) .....	54.1	66.4	86.1	110.2	133.3
Exchange rate (domestic vis-à-vis USD) .... year end .....	-	-	-	-	-
average .....	335.0	479.9	523.5	550.4	595.6
	297.7	405.3	509.6	575.0	580.0

Table 2  
Settlement media used by non-banks  
(at year-end, not seasonally adjusted, in billions of Tanzanian Shilling)

	1992	1993	1994	1995	1996
Notes and coins .....	81.9	105.9	136.6	197.8	233.2
Transferable deposits: .....	306.5	307.8	166.6	753.4	214.7
<i>Corporate sector</i> .....	-	-	-	-	-
<i>Household</i> .....	-	-	-	-	-
<i>Other</i> .....	-	-	-	-	-
Narrow money supply (M1) .....	186.2	24.1	329.6	428.3	449.2
Broad money supply (M3) .....	302.4	420.6	569.7	752.9	818.6

Table 3  
Settlement media used by banks  
(in billions of Tanzanian Shilling)

	1992	1993	1994	1995	1996
Reserve balances held at central bank .....	10.3	21.3	38.6	50.7	55.2
Transferable deposits at other institutions ..	0.5	4.7	3.4	5.1	9.2
Accounts at the Post Office (for Postal Bank) <sup>1</sup> .....	5.9	8.7	12.6	22.3	23.9
Accounts at the Treasury <sup>2</sup> .....	(16.2)	25.4	29.6	39.7	82.7
Required reserves .....	-	17.7	33.4	35.5	31.7
Institutions' borrowing from central bank <sup>3</sup>	0.4	44.7	0.6	70.3	5.5

<sup>1</sup> Post Offices do not maintain accounts for their customers but on behalf of Tanzania Postal Bank. <sup>2</sup> Government deposits held with the central bank. <sup>3</sup> Banks and others.

Table 4  
**Banknotes and coins**  
(in millions of Tanzanian Shilling)

	1992	1993	1994	1995	1996
Total banknotes and coins outstanding .....	108,897.5	132,312.7	187,824.3	264,116.1	279,774.9
<b>Denomination</b>					
<i>Banknotes:</i>					
10 000 notes .....	-	-	-	77,297.4	121,294.2
5000 notes .....	-	-	-	49,612.7	57,213.0
1000 notes .....	35,022.6	68,828.3	99,950.0	89,107.4	64,428.3
500 notes .....	43,256.8	37,632.2	54,907.7	34,551.0	22,525.6
200 notes .....	21,167.6	20,404.8	23,452.1	6,854.1	6,380.4
100 notes .....	6,989.2	3,149.7	6,142.2	2,260.3	1,693.2
50 notes .....	675.7	506.2	1,116.8	554.2	440.7
20 notes .....	269.4	113.6	372.3	502.1	499.8
10 notes .....	98.1	97.4	186.1	100.3	100.0
<i>Coins:</i>					
100 coins .....	-	-	-	1,228.0	2,741.8
25 coins .....	7.7	11.1	11.8	12.6	11.6
20 coins .....	312.0	270.8	407.7	722.8	987.8
10 coins .....	549.6	725.7	712.6	655.2	775.4
5 coins .....	297.7	321.1	313.4	388.5	415.7
1 coins .....	173.0	174.1	171.8	172.0	169.6
½ coin .....	45.1	45.2	42.1	45.8	45.8
1/5 coin .....	18.9	18.8	21.9	38.5	38.8
1/10 coin .....	3.9	3.9	3.4	4.6	4.6
1/20 coin .....	10.2	9.8	11.8	8.8	8.8
Banknotes and coin held by credit institutions .....	7,004.5	8,900.4	11,504.3	19,894.5	22,913.1
Total banknotes and coin outside credit institutions * .....	101,893.0	123,412.3	176,320.0	244,221.6	256,861.8
Banknotes held in overseas territories .....	-	-	-	-	-

\* Currency in circulation outside banks.

Table 5  
**Institutional framework**  
 (at end-1996)

Categories	Number of institutions	Number of branches	Number of accounts (thousands)	Value of accounts (millions of Tanzanian Shilling)
Central bank .....	1	4	4386 <sup>1</sup>	2,306,902
Commercial banks .....	14	170	2664	525,004
Savings banks .....	4	4	2	7,011
Public credit institutions .....	-	-	-	-
Post Office <sup>2</sup> .....	1	203	883	23,098
<i>Memorandum item:</i>				
Branches of foreign banks .....	7	8	724	142,644

<sup>1</sup> The central bank maintains Govt. Accounts on a three year on-line basis. <sup>2</sup> As an agent of Tanzania Postal Bank.

Table 6  
**Transfer instructions handled by securities settlement system:  
 value of transactions**  
 (in billions of Tanzanian Shilling)

	1992	1993	1994	1995	1995
Treasury Bills .....	26.6	65.9	116.9	307.5	593.9
Government stock, bonds and notes .....	66.7	68.9	102.1	341.0	334.3
Shares .....	-	-	-	-	-
Bonds .....	-	-	-	-	-
Futures .....	-	-	-	-	-
Options .....	-	-	-	-	-
Other .....	-	-	-	-	-

Table 7  
**Indicators of use of various cashless payment instruments:  
 volume of transactions**  
 (in millions)

Instruments	1992	1993	1994	1995	1996
Cheques issued <sup>1</sup> .....	-	-	0.415	0.405	0.390
Payments by debit and credit cards .....	-	-	-	-	-
Paper-based credit transfers <sup>2</sup> .....	-	-	1.695	1.565	0.419
Paperless credit transfers <sup>3</sup> .....			0.414	0.424	0.421
<i>customer initiated</i> .....	-	-	-	-	-
<i>interbank/large value</i> .....	-	-	-	-	-
<i>direct credits</i> .....	-	-	-	-	-
Direct debits .....	-	-	-	-	-
Other .....	-	-	-	-	-
Total .....	-	-	-	-	-

<sup>1</sup> Excluding intrabank cheques. <sup>2</sup> Includes Postal and Banks Mail Transfers. Postal Mail Transfers accounts for 85% of total volume. <sup>3</sup> Includes Postal and Banks Telegraphic Transfers. Banks Telegraphic Transfers accounts for 85% of total volume.

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