

Impact of Financial Sector Reforms on Domestic Savings, Investment and Cost of Intermediation in Tanzania

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ABSTRACT: Literature and empirical evidence shows that financial markets in developing countries are very weak, shallow and susceptible to failure. One of the solution to the problems is for the countries to adopt financial reforms. McKinnon and Shaw (1973), Fry (1997) and others have argued that financial liberalization increases financial depth, reduces interest spread, and increases bank investments. Since economic adjustments and financial reforms were undertaken in the early 1990's there have been different views on whether or not the financial liberalization have brought about the expected benefits to the Tanzanian financial sector and economy at large. To test the arguments, a study was conducted to assess the impact of financial sector reforms on domestic savings, bank investments and cost of intermediation during the pre-financial sector reform (1980-1990) and the post financial sector reform (1991-2000) period. Using the Mann Whitney test to assess the impact of the three variables (domestic savings, bank investments and cost of intermediation) the results reveled both positive and negative impact. Specifically, the results revealed that after financial sector reforms the proportion of commercial bank lending to the private sector increased compared to lending to public sector and number of players in the financial sector increased. It also showed increased fiscal discipline, improved prudential regulations and bank supervision, and stable inflation. The results however showed significant decrease in the financial depth. Bank efficiency as assessed by cost of intermediation did not show sign of improvement and lending rates were still at high levels indicating high interest rate spread. The negative results were caused by lack of a supportive policy, legal, and regulatory framework conducive to the development of a market oriented financial sector and bank operational deficiencies. From the results it is concluded that financial reforms will not always bring positive results if the right environment is not created when instituting the reforms.

INTRODUCTION

It is generally agreed that, financial markets in developing countries are very weak, shallow and susceptible to failure. The primary weakness of these markets is shortage of capital. Before the liberalization of economies, the financial systems of many developing countries were characterized by strong government interventions. The interventions were in the form of interest rate ceilings and direct controls on credit allocation that forced the system to fund government fiscal imbalances and to subsidize priority sectors. The control of the government over the financial system led to very low and often negative real interest

rates on both deposits and loans (Cobinna, 1999; Nyagetera, 1997; Chijoriga, 1997 & 2000).

There are many financial distortions resulting from the government intervention by way of financial repression (McKinnon, 1973; Shaw, 1973). They both point out that, financial repression limits economic growth in developing economies and that the ill-functioning of the financial market has major impact on macro-economic instability. McKinnon (1973) and Shaw (1973) further argue that, the removal of government controls in financial markets, the so called "financial liberalization" is the solution since it stimulates savings, investment and economic growth.

In the late 1970's and 1980's, most of the developing countries embarked on financial liberalization (Fischer, 1994; Nyagetera, 1997; Brownbridge & Harvey, 1998; Duesenberry, *et al*, 2001). The move to liberalize the financial system was motivated by the real state of the domestic

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financial system and the influence of the Structural Adjustment Programs (SAPs) as promulgated by the Bretton Woods institutions [World Bank and International Monetary Fund (IMF)]. The objectives of these reforms were to build more efficient, robust and deep financial system, which could support the growth of private sector enterprise by giving more autonomy to financial institutions in allocating credit according to commercial criteria (Fischer, 1994; Warman & Thirlwall, 1994; Clarke, 1996; Cobbinna, 1999).

From 1967 to the late 1980s, Tanzania had a centrally planned economy with the government having majority shareholding in most large enterprises and controlling the financial sector. These controls were in the form of restrictions on bank entry, capital movements, money market reserves, interest rates and credits. These measures, combined with other factors such as: the oil crisis; the war with Idd Amin of Uganda in late 1970's led to low foreign exchange earnings, increase in external debt and high trade imbalances, high inflation, low levels of savings, investment and economic growth (Nyagetera, 1997; Chijoriga, 1997 & 2000). Due to the financial repression, the government enacted the Banking and Financial Institutions Act of 1991 (BFLA, 1991) and thereafter embarked on financial sector reforms to rectify the distortions brought about by the financial policies. The problems mentioned above and others lead to the government to undertake a number of structural adjustments programs (SAPs) and financial sector reforms aimed at enhancing financial savings mobilization, credit allocation to the private sector, promoting both direct and indirect investments and overall economic growth.

Research Problem

It is more than a decade since adjustments and reforms were undertaken and there are different views on whether or not financial liberalization has brought about the expected benefits to Tanzania's financial sector and economy at large. A number of arguments were advanced regarding

the impact of financial reforms. Some argued that, there were few innovations in the financial sector which limited competition due to higher cost of intermediation (high interest rate spread-Mamiro, 2002; Nyagetera, 1997). Others felt that, the newly established banks had aggravated the urban bias by avoiding rural areas and concentrating in town centres, predominantly Dar es salaam, Mwanza and Arusha ((DANIDA, 2002; DFID, 2002; NORAD, 2002)). Thus some of the rural areas are likely to have suffered deterioration in the availability of financial services as a result of branch closures by government-restructured banks (the National Bank of Commerce and the Cooperative Rural Development Bank).

Another group argued that, the reforms have had little impact on financial savings mobilization, thus resulted in no financial deepening and the level of financial system is still shallow in performing the intermediation function between the savers and borrowers with high interest spread between loans and deposits rate. After ten years of experience with the financial reforms and all these impediments, it is useful to assess the impact of financial liberalization on financial savings, investment, and interest rate spread (cost of intermediation). This paper presents findings of a study. The paper is organized in four sections. Section one presents the introduction including rationale for undertaking the research. Section two reviews the theoretical and the empirical literature on financial sector repression and liberalization. Section three presents the research methodology applied and the field findings. The paper ends with conclusions and recommendations.

FINANCIAL SECTOR REPRESSION AND LIBERALIZATION

Financial Sector Repression

Before the financial sector liberalization and reforms undertaken in the 1990s, the Tanzanian financial sector was characterized by what is known as financial repression. The regime was

characterized by restricted entry into the banking market and the major commercial banks were state owned (Ernest *et al*, 1997). Several authors (McKinnon, 1973; Shaw, 1973; Fry, 1997; and Cobinna, 1999) have collectively argued that financial repression reduces the real rate of growth and the real size of the financial system. The literature advocates for financial liberalization as a necessary condition for economic development in countries where financial repression is prevalent.

According to the literature, the primary role of financial repression in the economy is to facilitate the control of financial system resources by the public sector. Fry, (1997) and Nyagetera, (1997) argue that many countries which adopted financial repression policies initially did not aim at indiscriminate repression but at "financial restriction"³ after which they inadvertently slipped into repression. The process of financial repression arises and operates when the mechanism of financial restriction is brought into play. This involves abolishing free entry and competition in the financial sector, promoting segmentation and creation of public sector monopolies in the financial sector. It also entails maintaining interest rates ceilings, rigid fixed exchange rates, credit allocation controls, and foreign exchange allocation controls (Ernest *et al* 1997; Nyagetera 1997, Brownbridge & Harvey 1998). The process leads to inadequate generation of funds for the public sector from the financial system; inflation induced by inflationary financing of the public sector deficits; dependence on foreign aid; negative real interest rates and overvalued real exchange rates (Fry, 1997). All these financial restrictions generate financial repression hence causing financial disintermediation; financial crowding-out; capital flight, increased informal financial markets and parallel foreign exchange markets (Cobinna, 1999).

Financial restrictions have very damaging consequences to banks and the economy as a whole. As a result, the financial system remains underdeveloped while negative real rates lead to a fall in bank deposits as a proportion of Gross Domestic Product (GDP) and less lending. Competition is stifled, financial institutions and banks provide poor quality services. Banks that are government owned end up having poor lending decisions (often politically influenced) and low repayment rates which result into huge bad debts and non-performing loans leading banks into financial crises, insolvency or failure (Chijoriga, 1997 & 2000). The failure of public banks necessitates large budgetary bailouts using taxpayer's money to protect depositors and creditors (Fry, 1988; Harvey, 1991; Brownbridge & Harvey, 1998 and Chijoriga 2000).

According to Fry (1997), interest rates ceilings distort the economy in four major ways. First, low interest rates produce a bias in favour of current consumption at the expense of future consumption, consequently reducing savings below the socially optimum level. Second, potential lenders engage in relatively low-yielding direct investment (e.g. Treasury Bills) instead of lending to bank depositors/customers. Third, bank borrowers who are able to obtain all the funds they want at low loan rates choose relatively capital-intensive projects. Fourth, the pool of potential borrowers include entrepreneurs with low yielding projects who would otherwise not be able to borrow at higher market clearing-interest rate, are able to borrow and hence inefficiency in the allocation of fund.

Financial Sector Liberalization

Financial sector reform consists of two distinct but complementary types of change that are considered necessary to establish a financial system capable of acting as the "brain of the economy" and capable of allocating the economy's savings in the most productive way among different potential investments. Liberalization of the sector means putting the private sector rather than the government in charge

³ These are policies that restrict the financial liberalization of financial resources to the private sector in favor of public sector.

of determining who gets credit and at what price. It also means the establishment of a system of prudential supervision designed to restrain private actors to ensure that their decisions will be broad and in the general social interest (Williamson, 1999).

Objectives of Financial Liberalization

The basic objective of financial liberalization is to improve economic performance through increased competitive efficiency within financial markets, thereby indirectly benefiting non-financial sectors of the economy through three major channels. First, the removal of regulations and price distortions which permits savings to be directed into highest yielding forms of investment (improved allocative efficiency). Secondly, increased competition and hence reduced costs of financial intermediation (higher operational efficiency), and thirdly, reform measures generate an improved range of financial products and services adaptable to changing consumer needs - dynamic efficiency - (Fischer, 1993).

According to the literature there are six major dimensions of financial liberalization proposals to curb financial repression (McKinnon, 1973; Shaw, 1973; Nyagetera, 1997; Williamson, 1999). These include; elimination of credit controls; encouraging positive real interest rates (eliminating interest rate ceiling and pursuing price stabilization *via* appropriate macro economic and structural policies); free entry into the banking sector; bank autonomy (allowing bankers rather than bureaucrats to decide whom to employ, at what wage rate, where to open branches, etc.); privatization of bank ownership and lastly the liberalization of international capital flows.

Prerequisites for Successful Financial Liberalization

Various researchers show that successful financial liberalization programme requires a range of supportive government activities such as good policies that promote financial development, economic growth and a properly

functioning legal framework capable of enforcing the contractual agreements between the banks and their stakeholders. Experience from liberalized economies show that there are five prerequisites for successful financial liberalization (Fry, 1995):⁴

- ♦ Adequate prudential regulation and supervision of commercial banks;
- ♦ A reasonable degree of price stability (inflation);
- ♦ Fiscal discipline in the form of sustainable government borrowing. The goal is to avoid inflationary expansion of reserve money by the central bank either through direct domestic borrowing or through the indirect effect of government borrowing that produces surges of capital inflows requiring large purchases of foreign exchange by the central bank to prevent exchange rate appreciation;
- ♦ Profit maximizing and competitive behavior by the commercial banks;
- ♦ A tax system that does not impose discriminatory explicit or implicit taxes on financial intermediation.

Critiques of Financial Liberalization

Many of the arguments in favor of financial liberalization are compelling. Nonetheless, there are a number of issues which need to be clarified. First of all the experience of financial liberalization in the world has been contradictory and some of the empirical studies relating to the effect of liberalization on savings, investment and growth have mixed conclusions. Gibson and Tsakolotos (1994), examined some of the major criticisms of the financial liberalization argument and made a comprehensive survey of the issues involved.

The first criticism refers to financial savings. The argument is that financial savings is just one type of savings. The fact that financial savings

⁴ As noted by Maxwell J. Fry (1997), In Favour of Financial Liberalization, The Economic Journal, 107 (May), p.755, published by Blackwell Publishers, 108 Cowley Road, Oxford.

may increase as interest rates are liberalized (law of demand and supply), may be simply due to substitution effect between financial assets and other assets, leaving total savings unchanged. A second criticism is that, the model seems to treat banks simply as savings depositories, with the presumption that the supply of loans from the banking system depends on deposits held by the banks, and if deposits increase, loans will automatically increase. The supply of credit is treated as exogenously determined. Also, the model does not take into account the fact that banks have the power to increase their credit by borrowing from central banks acting as the lender of last resort. This means that the supply of loans depends on the demand for loans and not simply on the supply of deposits. The third criticism is that, the model ignores the fact that high real interest rates may lead to adverse effects on costs which may lead to financial stagflation (a combination of cost inflation and rising unemployment).

EMPIRICAL EVIDENCE ON FINANCIAL SECTOR REFORMS

Financial Sector Reforms in Developing Countries

Most of the concerns and problems relating to financial liberalization were noted with respect to developing countries. As a result, most of the studies to test the validity of financial liberalization have been conducted in developing countries. For example, using the principal components to assess the effect of financial liberalization on private savings, Bendiera, *et al* (2000)⁵ constructed 25-year time series indices of financial liberalization for each of eight developing countries: Chile, Ghana, Indonesia, Korea, Malaysia, Mexico, Turkey and Zimbabwe. The findings did not support the hypothesis that financial liberalization increases savings. Their

findings support the theoretical propositions that financial liberalization, particularly in elements that relax liquidity constraints may be associated with a fall in savings.

In his article, "In Favour of Financial Liberalization," Fry (1997) tested the hypothesis of financial liberalization as developed by McKinnon (1973) and Shaw (1973) across 85 countries for the 1971-95 period. He found broad support that there is a relationship between growth rate and real interest rate. Fry's findings suggested that, the relationship between real interest rates and growth is likely to be an inverted U-shape because negative real interest rates are not conducive to financial development and growth, and very high real interest rates are also likely to reduce growth by adversely affecting investment, leading to a concentration on risky projects. Somewhere in between, growth is likely to be maximized.

Using data from Mexico for the 1960- 1990 period to test the financial liberalization hypothesis, Warman and Thirlwall (1994) financial savings had responded positively to the rate of interest, and this led to an increased supply of credit from the banking system to the private sector. Nonetheless, while the increased supply of credit affected investment positively, there was a strong negative effect of interest rates on the level of investment, holding the supply of credit constant, and the net effect of higher real interest rates on investment was adverse.

Fry (1995) also assessed the effects of several types of policies on financial development in six countries. Specifically he used the data on interest rates, and reserve and liquidity requirement for a period of 40 years. His findings demonstrate that the real interest rate had positive and significant effect on financial development in four out of six countries examined, and no significant effect in the other two cases (but positive in one of them)⁶.

⁵ Bandiera, O; Caprio, G; Honohan, P. and Schiantarelli, F (2000). "Does Financial Reforms Raise or Reduce Saving?" *Review of Economics & Statistics*. Vol.82, issue 2 May 2000.

⁶ Philip, A; Panicos, D; Bassam, F and Kostas, M (2002), "The Impact of Financial Liberalization Policies on Financial Development: Evidence From Developing Economies" *Journal of Economic Literatures*.

Using Ordinary Least Square (OLS) method Mushi (1998), traced the impact of financial development on Tanzania's economic growth. The study found that, economic growth in Tanzania responded negatively to the size of financial system. She also found that, the size of financial system was proxied by monetary depth, overall financial depth and financial intermediation. She however, attributed the negative results to the fact that, financial system in Tanzania had been inefficient in all its activities.

Another study, by Ernest et al (1997), found that in Tanzania, a large proportion of funds from the financial system during repression period were being transferred to the public sector, and hence allowing public sector deficit and losses incurred by parastatals to be financed by a fixed level of nominal interest rates at the rate below the market clearing. This resulted into high interest rates and high inflation rates experienced in the late 1980s.

Financial Sector Reforms in Tanzania

Tanzania and most developing countries introduced financial reforms to liberalize their financial sectors in the late 1980s and early 1990s. These reforms were, in many ways, an attempt to reverse the financial sector changes that had been widely implemented earlier in post independence period (from 1960s to 1970s). The key components of these reforms were: interest rate liberalization; introduction of Treasury Bills (TB) auctions; and free entry of new private banks and other financial institutions. Other components were: bank restructuring and re-capitalization of government owned banks; the privatization of banks; opening up of the capital account; and strengthening bank regulation and supervision institutions.

The restructuring of Tanzania's distressed banks involved the following measures: reconstitution and strengthening of affected banks' Board of Directors; closure of unprofitable branches; reduction of operating costs through retrenchment of staff; cleaning of balance sheets by off-loading non-performing loans to state-

owned enterprises; loans guaranteed by the government of Tanzania; and Non Performing Assets (NPA) granted to the private sector. For instance, by the end of 1991, NBC the largest bank had 203 branches and 337 agencies spread in 20 Tanzanian mainland regions. By the end of February 1996, NBC was operating only 142 branches and it had retrenched 43% of its workforce. During the same period, the government was forced to save NBC from failing by advancing it a sum of Tshs. 18,886,550,000.00 (about US\$ 37 million) in the form of government bonds for its non-performing loans (Chijoriga, 2000). In addition, the non-performing assets of the distressed banks were transferred to a wholly government-owned agency, the Loans and Advance Recovery Trust (LART) established in 1991, whose mandate was to realize proceeds from such assets to the extent possible.

By the end of June 2000, a total of 77 NPAs with face value of over Tshs. 28.82 billion had been transferred to LART by four institutions. These were, the NBC Holding Corporation, NBC (1997) Ltd, CRDB (1996) Ltd and Ulc (T) Ltd (Chijoriga 1997 and 2000).

Table1: Bank Non Performing Assets (NPA) PA Transferred to LART (Tshs. billions)

Institution	Number of NPA transferred	Amount of NPAs Transferred to LART
NBC holding	29	18.07
CRDB (1996)	32	5.47
NBC (1997) limited	9	5.05
Ulc (T) Limited	7	0.22
Total	77	28.82

Source: LART Annual Report for the year ended on June, 2001

In line with the policy of reducing direct involvement in the banking system, the government embarked on a policy of privatizing all state-owned banks. In 1997, NBC was split into two banks, NBC (1997) and National Micro Finance Bank (NMB). The privatization of NBC

(1997) Limited was completed on 31st March, 2000, when the Amalgamated Bank of South Africa (ABSA) acquired 70% shareholding of the bank and took over the management. During the same time the government transformed NMB into a micro finance bank, and in August, 1999 a United States based management contractor, Development Alternative Inc. (DAI), was engaged to turn-around the institution from the poor performance, management and non-performing assets situation.

Hypotheses

This research was conducted it was ten years since the government undertook the financial sector and other reforms. Arguments for and against the reforms were aired. Some people believed that the financial sector reforms had brought some positive changes to the financial sector, while other argued against. This research was conducted in order to assess Tanzania's experiences of the financial sector reforms and assess the impact of the reforms on three aspects; domestic savings, investments and cost of intermediation. The research tested three hypotheses as summarized below.

Hypothesis One

There is an increase in the level of financial intermediation with the liberalization of the financial sector in Tanzania. The test intended to measure the effect of financial repression on the level of financial intermediation is the ratio of M2 to GDP. The test assumes that, the level of financial savings is determined by positive deposit interest rate. According to the literature financial liberalization will result in more financial savings because it acts as an incentive to save (positive returns).

Hypothesis Two

There is a positive increment in the level of investments as a result of the financial sector reforms. The test assumes that policy makers care about bank spreads because they reflect cost of

financial intermediation. In the absence of government intervention on banks' activities, high spreads are usually interpreted as an indicator of inefficiency, which adversely affects domestic real savings and investment.

Hypothesis Three

There is a decrease in interest rates spread (cost of intermediation) as a result of financial sector reforms. The hypothesis assumes that after financial liberalization commercial banks become more efficient compared to the period under financial repression.

RESEARCH METHODOLOGY AND FINDINGS

Research Design and Analysis

The main concern of the study centred on comparing Tanzania's repressed and liberalized financial environments. The assessment was made by comparing three key financial variables for eleven years (1980-1990) under repressed policy regime and ten years (1991-2000) under the liberalization period. The cut-off period for the pre-liberalization was considered to be the period before the enactment of the Banking and Financial Institutions Act 1991 (BFIA, 1991). It should be noted that while the legal framework was put in place in 1991, the actual liberalization measures such as the liberalization of the exchange rate regime (1992), removal of restrictions on lending rates and commencement of Treasury bills auctions (1993), removal of restrictions on interest rates on fixed deposits and introduction of a market determined discount rate (1994), abolition of credit ceilings imposed on commercial banks lending (1996) were only taken at a later stage in different stages.

Both primary and secondary data were collected. Primary data was collected through an open-ended questionnaire by visiting a number of commercial banks. Both commercial bank employees and bank clients were interviewed regarding three variables. Personal interviews with the officials of Bank of Tanzania (BOT) Banking Supervision Directorate, Bank Managers,

Tanzania Institute of Bankers (TIOB) and Tanzania Banking Association (TBA) were also conducted to get the institutional and individual opinion regarding the banking industry and changes taking place after the reforms. By 2000 the total banking and financial institutions population had reached about 20. The total sample was 57, comprising of bank clients (16), BOT officials (4), TIOB (2), TBA (1) and bank officials (40). Most of the secondary data was obtained from various local institutions (BOT publications, World Bank and IMF reports etc.). The descriptive data collected using the structured and open-ended questionnaire and the secondary data were summarized and analyzed using the SPSS computer soft ware. To test significance of the observation between the pre-reform and post-reforms periods, non-parametric statistical tests were conducted. Since the observations were independent and were unlikely to be normally distributed, the Mann Whitney test for independent samples was used. While the general observations were based more on the primary data collected, test hypothesis were based on secondary data

General Observation on the Impact of Financial Sector Reforms and Financial Deepening

This section presents the empirical results from the field survey and secondary data. The general research findings are first presented followed by those of the hypotheses tested.

Impact of the Financial Reforms

Overall, many respondents felt that there are more positive impacts resulting from the financial sector reforms compared to the negative impacts. The result further revealed that 62.1% of the respondents (bank clients, BOT officials, TIOB, TBA and bank officials) viewed current levels of interest rate as high. According to the respondents, the main causes of the high interest spread were the high risk involved in dealing with customers, high operating costs, high return requirement by banking institutions, together with the high levels of non-performing assets. In

addition, respondents viewed the Tanzanian judicial system as a bottleneck. For instance, when it comes to litigation against loan defaulters, it takes too long and is often frustrated by numerous court injunctions. The establishment of a Commercial Court as part of the High Court is expected, to some extent, to increase the effectiveness of the judicial system in resolving commercial/business disputes.

The interview results also showed that most of the bank officials interviewed felt that there was a high degree of risk in doing business in Tanzania. This emanates from credit risk, exchange rate risk and interest rate volatility, as well as high operating costs that are a result of high utility costs and weak corporate governance on the part of borrowers. The study also found that 95.6 % of all respondents ((bank clients, BOT officials, TIOB, TBA and bank officials) viewed interest rate spread as being high and agreed that the high risk was an important factor that contributes to higher spread.

The results further revealed that increased competition assessed in terms of number of players in financial industry, together with changes in the financial environment including computer technology has stimulated some improvement in financial services and research on new products and services that would meet customer needs and improve profitability (financial engineering). Some of the new entrants have introduced personalized services, such as networking the customer into branch system. Financial innovations have brought the wonders of modern computer technology that have enabled banks to lower the cost of bank transactions by having the customers interact with electronic banking facilities instead of human being. One of the important form of electronic banking introduced during the reforms is the Automatic Teller Machines [ATMs], which have an advantage of being available 24 hours a day and does not involve other expenses paid to staff like overtime payments. Other innovations introduced during the post-reform period include the interest bearing current accounts, insurance

facilities, and off-balance activities⁷ (i.e. forward contracts, derivatives, guarantees, letter of credit etc).

Due to increased new entrants to the market, there is stiff and increased competition for corporate clients (which are fewer than the micro and small enterprises), especially after the entry of foreign banks, which focus more on corporate clients, while the local banks focus more on micro and small businesses. Unfortunately, according to the respondents the impact of new entrants on the cost, quality and range of financial services has been limited for a number of reasons. One major reason being, few banks have a lion's share of the market leaving many banks sharing meager proportion of the market. For example, 90% of banking domestic savings is being held in only 6 banks (NBC, NMB, Standard Chartered, CRDB, Citibank and Stanbic Bank) leaving the other banks to share the remaining 10% of the savings. These 6 big banks are likely to act in more oligopolistic way, hence leading to less impact on the interest rate spread.

Impact on Financial Sector Deepening

The impact of financial sector reforms on financial depth is measured by bank deposits and M2 as percentages of GDP. According to the results shown in table 2 below, financial depth has been decreasing over time leading to declining financial services.

Table 2 shows that during the pre-liberalization period, the average M2/GDP ratio was 25.07%, while the average M2/GDP ratio rate in the post-liberalization period was 19.80%. If one compares the ratios of the two periods in absolute terms, one can conclude that more people used banks in the period under financial repression compared to the period of financial liberalization. This observation is partly attributed to the fact that after the financial sector reforms many bank branches in the rural areas were closed which led to reduced savings

mobilization and hence lower ratio of M2 to GDP. These results support the argument that after financial sector reforms financial services to the rural areas declined.

Table 2: Ratio of M2 to GDP

Pre-Liberalization		Post-Liberalization	
Year	M2/GDP	Year	M2/GDP
1980	30.4%	1991	21.4%
1981	30.6%	1992	22.3%
1982	30.6%	1993	22.8%
1983	30.2%	1994	22.9%
1984	25.1%	1995	21.9%
1985	23.4%	1996	19.8%
1986	22.4%	1997	17.7%
1987	22.0%	1998	16.5%
1988	19.2%	1999	16.3%
1989	20.0%	2000	16.4%
1990	21.9%		

Average 25.07% Average 19.80%

Computed from field results.

Structure of Savings Intermediation in Pre- and Post-Liberalization Periods

Analysing the structure of savings during post- and pre-liberation periods shows that the ratio of deposits to GDP fell from 16.8% (pre-reform) to 12.7% (post-reform). By comparison, the ratio was higher in the early 1980s, followed by a gradual decline before reaching 14.3% in 1990, with an average ratio of 16.8% during the 1980-1990 period. During the post-liberalization era, the ratio was still low. In 1999, the ratio was on average around 9.8% with gradual improvement towards year 2000, graduating to 10.5%. The disaggregated demand savings and time deposits also show the downward trend with an average of 56.3% and 29.4% (pre-reform) and 46.2 and 26.7% (post-reform) respectively. Table 3 below shows the detailed trend in changes in interest rate structure. The results show declined savings deposits to GDP ratio after the financial sector reforms.

⁷ Means items not shown on the bank's balance sheet but which constitute credit risk.

Table 3: Structure of Domestic Deposits (Percentage)

Pre Liberalization				Post Liberalization					
Year	^a DD	^b TD	^c SD ^d /GDP	Year	^a DD	^b TD	^c SD ^d /GDP		
1980	66.0	23.4	10.6	21.3	1991	48.9	29.3	21.8	15.0
1981	62.7	26.4	10.8	20.7	1992	47.7	33.0	19.3	14.9
1982	61.7	27.1	11.2	20.7	1993	51.0	28.4	20.6	15.2
1983	59.1	29.5	11.4	21.7	1994	49.4	27.3	23.2	14.6
1984	51.0	34.5	14.5	16.4	1995	49.8	24.7	25.5	13.2
1985	47.8	37.4	14.8	15.8	1996	44.8	28.7	26.5	12.4
1986	54.6	30.1	15.3	14.3	1997	43.6	26.7	29.7	11.0
1987	53.9	30.3	15.8	13.8	1998	44.3	25.0	30.7	10.5
1988	58.0	25.0	17.0	12.4	1999	42.2	25.4	32.4	9.8
1989	55.0	27.6	17.4	12.9	2000	43.2	24.3	32.6	10.5
1990	48.9	32.2	18.9	14.3	2001	43.1	25.3	31.6	
Average	56.3	29.4	14.3	16.8	Average	46.2	27.1	26.7	12.7

Computed from Appendix 1

Where: ^aDD = Demand deposits

^bTD = Time Deposits

^cSD = Savings Deposits

^dD/GDP = Ratio of deposit to GDP

Commercial Bank Investments in Pre and Post Liberalization Periods

The results show that, after financial liberalization, there was a significant increase in credit allocation to the private sector compared to the public sector. As shown in Table 4, from 1995 to 2001 lending to private sector increased compared to the public sector. One of the factors contributing to reduced government borrowing was substantial improvement in the fiscal policy. In 1996, the government of Tanzania established an independent tax administration agency, the Tanzania Revenue Authority, which has led to improved tax revenue collection. During the same period parallel to the liberalization of the financial sector, the government privatized several of its parastatals, mainly dominated by marketing boards, crop authorities, cooperatives and general trade which were heavily dependent on the government budget. This led to reduced government borrowing. From the results we conclude that decreased government borrowing from the banking system is mainly due to the improvements in national fiscal policies, hence reduction in the budget deficit. Reduced

government deficit also led to decreased inflation. Table 4 shows in percentage terms, the public and private shares in commercial banks' total lending in pre- and post-liberalization periods of the financial sector.

Table 4: Proportionate Lending to Public and Private Sector

Year	Lending to Government	Lending to Private sector
1980	85.1%	14.9%
1981	91.0%	9.0%
1982	91.5%	8.5%
1983	88.1%	11.9%
1984	94.9%	5.1%
1985	86.3%	13.7%
1986	89.4%	10.6%
1987	89.4%	10.6%
1988	82.2%	17.8%
1989	79.3%	20.7%
1990	70.0%	30.0%
Average	86.1%	13.9%
1991	74.1%	25.9%
1992	59.9%	40.1%
1993	49.8%	50.2%
1994	42.4%	57.6%
1995	39.6%	60.4%
1996	21.3%	78.7%
1997	12.3%	87.7%
1998	4.7%	95.3%
1999	27.1%	72.9%
2000	25.8%	74.2%
2001	25.0%	75.0%
Average	34.7%	65.3%

Source: BOT Economic Bulletin Various issue

Table 5 shows that banks extended less credit to agriculture and agricultural marketing boards. Starting 1995, the share of lending to marketing of agricultural produce in total bank lending fell sharply, while lending to mining and manufacturing increased. For instance, in 1987, lending to the marketing of agricultural produce constituted 64% of all commercial bank lending. In 1995, this decreased to 19.7%, and in 2001, it was below 0.1% of the total lending. At the same time, lending to mining and manufacturing sectors for the same period was 11.4%, 21.2% and 36.6% respectively. The decreased lending share to agricultural marketing boards was due to the removal of lending directives by the central government, allowing commercial banks to offer loans on commercial basis rather than government's preferences. While the BOT Act of 1968 and 1998 specifically mentioned the agricultural sector as a priority-lending sector, subsequent BOT directives have given banks the mandate to decide how much they lend to various sectors, though each bank is required to have its lending policy approved by the BOT.

Key:

- a) = Marketing of agricultural produce;
- b) = Mining and manufacturing;
- c) = Agricultural production; and
- d) Transportation

Source: *BOT Economic Bulletin*, for Quarters Ended December (1996,2000)

Loan to Deposit Rate in Pre- and Post-Liberalization Periods

Proponents of the financial sector reforms argue that the major objective of financial sector liberalization is to boost bank lending to the private sector, which is regarded as the engine of economic growth. Empirical results however show that the growth of commercial bank lending following liberalization was disappointing in many countries. For example, the loan to deposit ratio declined from 155.4 percent in 1989 to 94.2 percent in 1992, reaching 25.4 percent in 1996, before rising slightly to 27.7% in 1997. The trend showed continued improvement to 42.9% by the end of 2001. Recent results show increased lending to indicate some successes in the financial sector reform. It should be noted that while results show that more lending went to the private sector, nonetheless bank lending to micro and small scale borrowers and start-up enterprises in Tanzania was reduced. This is proved by the type of private firms funded by the banks. Most banks are comfortable to lend to medium and large corporate firms and little to micro and small enterprises. Reasons for not lending include high risks and absence of collateral (ILO, 2001, 2003; USAID, 2001; APDF, 2002).

Generally, the loan to deposit ratio was low, due to lack of bankable projects (businesses) and high risk of doing traditional banking business. This has caused a high level of idle reserves in the banks and increased bank investment in low return assets (government securities), which lead to overburdening of the few creditworthy borrowers (high lending rates), and low returns to depositors (low deposit rates). Information asymmetry is another reason for high lending risk. Banks face acute problems of information

Table 5: *Domestic Lending to Selected Sectors*

Year	(a)	(b)	(c)	(d)
1980	63.1	8.9	6.0	1.8
1981	63.5	6.8	5.6	1.6
1982	61.3	7.1	4.4	2.1
1983	63.0	7.5	2.9	2.3
1984	58.5	10.3	5.0	2.0
1985	55.8	8.2	3.7	2.1
1986	18.6	5.2	4.9	1.5
1987	64.0	11.4	7.3	2.0
1988	42.0	16.2	6.8	1.7
1989	40.4	18.8	5.5	1.9
1990	31.4	22.7	8.4	2.4
1991	36.6	21.0	9.6	2.2
1992	24.6	19.0	7.7	2.5
1993	25.2	18.7	6.6	3.9
1994	26.9	26.8	9.0	3.9
1995	19.7	21.2	8.1	1.8
'96	6.0	25.2	11.7	5.9
'97	1.4	23.6	7.5	8.1
'98	2.6	23.1	7.5	9.1
'999	0.8	29.3	5.5	11.0
2000	0.4	31.4	6.3	13.5
2001	0.0	33.6	9.6	10.1

concerning the viability and creditworthiness of borrowers. Also contract enforcement subsequent to the loan approval is problematic, hence increasing the risk of loan default.

Table 6 shows that, banks are more conscious in engaging themselves in traditional banking business. Most of the banks were concentrating their business on off-balance sheet items rather than offering loans and advances. As a result, portfolio allocation by banking institutions was in favor of short-term treasury bills. This has reduced the incentive for savings mobilization and efficient allocation of financial resources to the most productive sectors of the economy. Anecdotal evidence shows that banks and financial institutions investment in government bonds and treasury bills has increased. The increase in amount of bonds and treasury bills tendered relative to those offered by the government is an evidence of commercial bank involvement in less risky assets. Commercial bank investment in these low earning assets is one of the causes of the decreased deposit rates.

commercial lending policies by public sector banks, was intended to enhance the efficiency of credit allocation, by allowing price mechanism and commercial judgment to determine credit allocation. One of the most puzzling features of the financial reform in Tanzania is the behavior of interest rates. Nominal interest rates on loans were very high especially for local currency, a scenario that is not easily explainable by international interest parity considerations. Also, surprising were the high and relatively stable margins as evidenced by the wide spread between the loan and deposit rates.

Looking at interest rate spreads, it was observed that, immediately after deregulation of interest rates, the spread shot-up to 15 and 21.3 percent in 1993 and 1996 respectively. During the pre-reform period (1980 to 1986), the spread was constant at the rate of 6 percent, and then it increased to 7.5 percent in 1987 and 1988. From 1989 to 1992, the spread was 5 percent. However, from 1996 to 2001 the interest rate spread showed a decreasing trend, but still at high levels [see Table 7].

Table 6 : Lending to Deposit Ratio

Year	Lending to Total Deposit	Year	Lending to Total Deposit
1980	56.9%	1991	137.9%
1981	56.6%	1992	94.2%
1982	51.1%	1993	89.7%
1983	48.8%	1994	74.7%
1984	50.0%	1995	50.6%
1985	61.3%	1996	25.4%
1986	84.3%	1997	27.7%
1987	126.3%	1998	33.8%
1988	149.7%	1999	48.5%
1989	155.4%	2000	43.5%
1990	141.4%	2001	42.9%
Average	89.3%	Average	60.8%

Source: Bank of Tanzania Economic Bulletin various issues.

Interest Rates in Pre- and Post- Liberalization Periods

Interest rate liberalization, together with removal of allocative credit directives and the adoption of

Table 7: Interest Rate Spread, Lending and Deposit Rates

Year	^a Lend	^b Depo	^c IFL	^d SP
1980	11.0	5.0	30.3	6.0
1981	12.0	6.0	25.7	6.0
1982	13.5	7.5	28.9	6.0
1983	13.5	7.5	27.1	6.0
1984	13.5	7.5	36.1	6.0
1985	16.0	10.0	33.3	6.0
1986	16.0	10.0	32.3	6.0
1987	29.0	21.5	30.0	7.5
1988	29.0	21.5	31.8	7.5
1989	31.0	26.0	30.3	5.0
1990	31.0	26.0	35.8	5.0
1991	31.0	26.0	28.7	5.0
1992	31.0	26.0	21.8	5.0
1993	39.0	24.0	24.0	15.0
1994	39.0	25.0	33.1	14.0
1995	40.0	21.0	29.8	19.0
1996	38.0	16.7	21.0	21.3
1997	24.3	10.1	16.1	14.2
1998	26.0	7.8	12.8	18.3
1999	22.7	7.1	7.9	15.6
2000	23.1	4.9	5.9	18.2
2001	18.2	3.8	5.1	14.4

Where: ^aLend = Average lending rate

^bDepo = Average deposit rate

^cIFL = Inflation rate

^dSP = Spread

Source: *Bank of Tanzania Economic Bulletin* (various issues)

The lending rates have been maintained at relatively high levels compared to savings and discount rate. While the deposit rates are more sensitive to the decrease in the inflation rate, the lending rates are inversely related to changes in interest rates.

From the empirical results the leading factor as evidenced by the descriptive mean of 4.6 in the ranking was high default risk. Other factors with descriptive means shown in brackets were high operating costs (3.61), level of non-performing loan (3.55) and higher profit requirement (3.50). Past history on NPA has forced banks to take extra caution in lending, particularly to start-up companies and past defaulters.

Theoretically and empirically the concept of cost of financial intermediation cannot be explained by one specific variable. The fact is that, banks do not charge only one loan rate or pay a single deposit rate. On any particular day, every bank charges and offers a multitude of rates depending on classes of customers and the type of products the bank is offering. Moreover, it is common for banks to increase their revenue from loans (and payment to depositors) by charging (paying) fees and commissions, while they are not included as interest charged (paid), they effectively increase the cost (revenue) faced by borrowers (lenders). In view of those factors, the deposit and lending rates alone may sometimes not represent the real cost of intermediation incurred by borrowers.

High lending rates [both in real terms and discount rates] tend to place undue burden on borrowers and production. They also generate oligopolistic profits to the otherwise inefficient financial institutions. Higher lending rates are therefore an indication of continuing inefficiencies in the financial system.

Test on Financial Deepening (Financial Intermediation)

In order to test whether the data collected had any statistical significance some statistical tests were carried. The test were based on three hypothesis proposed in section 2.5 Below are the hypothesis test results. M2/GDP ratio is one of the indicators of the extent to which the economy uses the financial system. The study also tested if there was a significant increase in the level of financial intermediation after the liberalization of the financial sector in Tanzania. The test compared the level of [M2/GDP] pre and post financial liberalization.. The Mann-Whitney test was used for comparing the [M2/GDP] ratio between the two periods. The results were as follows.

Table 8: Test Statistics for the Levels of Financial Deepening (M2/GDP)

	M2/GDP
Mann-Whitney U	19.500
Wilcoxon W	74.500
Z	-2.501
Asymp. Sig. (2-tailed)	.012
Exact Sig. [2*(1-tailed Sig.)]	.010

Statistically any significance values of less than 05, indicates that, the two groups have different means. The significance value from the results was 0.01 indicating that the two groups had different M2/GDP ratio, hence rejecting the null hypothesis. The statistical results support the hypothesis that financial depth in post financial sector reforms was significantly different (lower) than the period before financial sector reforms were put in place.

Test on the Level of Investments

The purpose of the second hypothesis was to test whether there was a positive increment in the levels of investments as a result of the financial sector reforms. Further investigation was done on the level of commercial bank investments (loan and advances). The main emphasis was placed

on domestic lending. The statistical inference was based on the calculated ratios of the aggregate commercial banks' domestic lending as a proportion of the gross domestic product (GDP). Again the Mann-Whitney test was conducted giving the results in Table 9 below.

Table 9: Test Statistics for the Extent of Commercial Banks Lending

	Lendto dep	Private
Mann-Whitney U	30.000	1.000
Wilcoxon W	96.000	67.000
Z	-2.003	-3.908
Asymp. Sig. (2-tailed)	0.045	0.000
Exact Sig. [2*(1-tailed Sig.)]	0.047	0.000

Comparing the pre- to post- liberalization periods, Table 9 shows that at 5 percent level of significance there was a significant decrease in lending to deposit ratio [Lendto dep], hence rejecting the null hypothesis. The results also indicate that, the proportion of lending to the private sector to the total commercial banks lending [Private] has increased tremendously.

Assuming that loans offered to the private sector are more efficient than those offered to the public sector, it can be statistically argued that, financial institutions in post reform period were more efficient in the loan advancement compared to the pre-reform era. From the results it is concluded that financial sector reforms did bring about positive effects in terms lending to the private sector, although total lending to the economy did not increase significantly.

Tests on Cost of Intermediation

Hypothesis three focused on testing whether financial sector reforms had brought about increased efficiency in the institutions which engaged in the banking business. Efficiency was tested by observing decreases in interest rate spread, a measure of the cost of intermediation. Again a Mann-Whitney test, at 0.05 significance level was carried by comparing interest rate spread from 1980-90 and that of 1991-2001, representing

the pre- and post-liberalization periods respectively. Table 10 presents the Mann-Whitney statistical results.

Table 10: Test Statistic for the extent of Interest Rate Spread

	SPREAD
Mann-Whitney U	20.000
Wilcoxon W	86.000
Z	-2.711
Asymp. Sig. (2-tailed)	0.007
Exact Sig. [2*(1-tailed Sig.)]	0.007

A low significance value of less than 05 (i.e. 0.007) indicates that, the two groups had significantly different means. This means the spread from the two periods were significantly different, hence rejecting the null hypothesis at 0.05 significant level.

Theoretically and empirically the cost of intermediation (interest spread) should decrease as the financial sector is liberalized. The study result, however shows that there was a significant increase in interest rate spread after the financial sector liberalization. During government controls, i.e. pre-financial sector reforms, interest spreads were very small. There has been an increase in the number of players in the market after the reforms. However if we consider interest rate spread as an indicator of the intensity of competition in the financial sector, the results indicate that financial sector reforms had not reduced the cost of intermediation.

CONCLUSION AND POLICY IMPLICATIONS

Conclusion

Proponents of financial sector reforms argue that a well functioning liberalization process should be able to: build efficient markets, develop robust and deep financial system which supports the private sector; have more autonomy in allocating credit; promote direct and indirect investments, increase savings and lending to the private sector. It also involves adequate prudential regulation and supervision of commercial banks; having a reasonable degree of price stability (inflation),

having fiscal discipline in the form of a sustainable government borrowing; a profit maximizing and competitive commercial banking industry, and having a tax system that does not impose discriminatory explicit or implicit taxes on financial intermediation.

It is obvious from this study that the financial sector reforms in Tanzania did not achieve positive results in all the areas mentioned above. Specifically the results show low financial deepening and low savings. They also show high interest rate spreads, low lending although financing to the private sector increased with declining lending to micro and small enterprises.

The results however have also showed positive results with regard to increased total lending to the private sector, increased number of participants in the banking industry, increased fiscal discipline, improved prudential regulations and bank supervision and stable inflation. Overall the economy has improved after the financial liberalization hence supporting the argument that financial liberalization does improve the financial system. More efforts are still needed to improve the system.

Policy Implications

The results have revealed some policy, legal and regulatory deficiencies and problems in banking operations. One of the unintended consequence of financial sector reforms is the closure of banks in the rural areas and subsequent concentration of banks in the urban centres. In a privatized commercial bank, profit motive becomes the core motive for operating a bank. This means few commercial banks will opt to operate in rural areas on the argument that they are not profitable. Based on the results there are a number issues need to be addressed in order to increase the positive impacts of the reforms.

To restore banking services and increase financial deepening in the rural area, the government of Tanzania should facilitate strengthening the delivery and financial capacities of Community banks, Micro finance institutions (MFIs), and Savings and Credit Cooperative

Organization (SACCOs), which have low cost of intermediation and operate close to the rural communities. The government should also promote establishment of bank agencies or "banks on wheels" in order to mobilize savings from the rural areas.

To increase lending to the private sector there is need to reduce the impediments which hinder lending to the private sector which include the court processes and injunctions, loan collateral systems, lack of bankable projects. Specific measures to be taken to improve the situation include: review of the BFIA, 1991 in order to improve collateral requirements and introduce new collateral alternatives; facilitate efficient, effective and transparent processing of loan defaulters through improved judicial system and court procedures. This will reduce the cost of lending, hence the interest rate on lending. In addition, there is need to introduce a National Guarantee fund which could be used to assist to guarantee start up businesses lacking collateral.

Lending to agricultural sector is currently hindered by lack of collateral and ownership to land. Review of the Land Act, 2000 should facilitate increased lending to the agricultural sector.

Increased lending to micro and small enterprises (MSEs) could be improved if special efforts are made to strengthen and establish well functioning micro finance organizations whose loan delivery mechanism [group lending and intensive loan administration and monitoring] can cope with problems faced in lending to micro and small enterprise borrowers. Commercial banks could also think of downscaling their operations to the micro and small enterprises.

Currently, banks offer loans only to existing businesses. To facilitate start up capital there is need to establish a development bank, venture capital firms and investment banks. The study has shown high interest rates spreads inspite of the increased number of licensed banks. Banks also offer very few banking products. Due to lack of bankable projects and high risks associated with lending many banks have resorted to

investing in Treasury Bills which is considered a more profitable investment and less risky. Because of limited profitable investments, banks have continued charging high interest rates on lending and low deposit rates. To reduce the interest spread banks should introduce more products which could reduce the cost of delivery and improve its income. Efficiency in delivery of its products and services through improved technology could facilitate reducing other operating overhead costs and hence reduce interest rate spreads.

The results have shown that financial reforms will not always bring positive results if the right environment is not created when instituting the reforms. From the field it was observed that when reforms were being implemented policies, laws and regulations relating to the financial sector were not fully developed which were necessary in building a conducive and supportive environment for implementing the reforms. This implies that for effective implementation of any reforms, policies, laws and regulations should first be developed and instituted to support the reforms.

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