A DETERMINATION OF THE RELATIONSHIP BETWEEN TAX COLLECTED AND FINANCIAL REPRESSION IN KENYA

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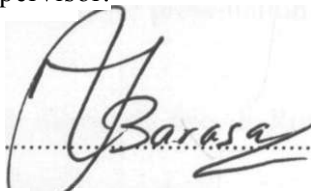
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DECLARATION

This research project is my original work and has not been submitted for examination any other University.

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This research project has been submitted for examination with my approval as university supervisor.

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DEDICATION

My mother, Zahra Kombo,

For her encouragement and push for tenacity.

My father, Sikudhan Kombo,

Except for your inspiration, it wouldn't have been possible.

ABSTRACT

The hypothesis of financial repression emphasizes a situation where the government limits access to funds in repressive systems. It involves laws, regulations, restrictions and taxes imposed by the government to disallow financial institutions from operating at their full capacity. In a repressed economy, the government has at its disposal huge resources to fund expenditure while the rest of the economy scrambles for meager resources left. The objective of this study was to determine whether there is a relationship between tax and financial repression in Kenya. The study employed the use of descriptive study design where descriptive statistics was used. The study used secondary data from Central Bank of Kenya covering the period from 2007 to 2012 and the analysis done through regression and correlation analysis using SPSS software. The study found that the tax base in Kenya is broad with tax collection growing at over 15 per cent per year - with over 70 per cent of domestic income being generated from taxation. It also established that financial repression is a factor of tax in the country with tax collection being affected by multiple factors including interest rates, bank reserves, credit allocation and exchange rate movements. The study therefore concluded that there is a positive relationship between tax and financial repression, though taxation in Kenya is not a sufficient factor to generate financial repression on its own.

TABLE OF CONTENTS

LIST OF TABLES

ABBREVIATIONS AND ACRONYMS

CBK: - Central Bank of Kenya

EAC: - East African Community

GDP: - Gross Domestic Product

KPMG: - Klyveld Peat Marwick Goerdeler

KRA: - Kenya Revenue Authority

PAYE: - Pay As You Earn

PSV: - Public Service Vehicles

SPSS: - Statistical Package for Social Sciences

TOT: - Turnover tax

VAT: - Value Added Tax

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Schulze (2000) illustrates that controls of capital outflows by governments are fundamentally designed to prevent the erosion of domestic tax base, therefore easing a government's budget constraints. Capital controls focus on three related aspects: capital taxation, seigniorage, and financial repression. The importance of these aspects depends on political factors (distribution of the tax burden) and structural-institutional factors (cost of alternative forms of taxation). As concerns capital taxation, Schulze (2001) argues that by limiting capital outflow, a government tries to prevent deterioration of the tax base and enhance its ability to tax capital effectively. In such cases, both individuals and companies find it hard to invest in foreign assets and are therefore forced to hold all savings in form of domestic financial assets. These domestic financial assets can be taxed more easily than foreign ones.

1.1.1 Financial Repression

Financial repression can be broadly defined as "the set of government legal restrictions, policies, regulations, taxes, distortions, qualitative and quantitative restrictions and controls imposed by the government, which do not allow financial intermediaries to operate at their full capacity", (Martin, 1999: pg. 279). Financial repression represents a "tax-like" method of financing governmental deficits. It's more appealing to governments with characteristic uneven income-tax rates due to corruption or large variations in the

government's ability to verify income across social groups. Actually, Bai et al (2001) suggests that financial repression in developing countries allows governments to tax savings of all individuals at similar rates. In most cases they force captive buyers (usually commercial banks) to hold government debts at interest rates below market yields.

Given the wave of interest rate deregulation in the 1980s, and removal of credit ceiling some years earlier, the major form of financial repression is currently via obligatory reserve requirements. The concern is not whether financial repression is prevalent but the associated degree to which an economy is repressed, since developed or developing economies both resort to such restrictive policies (Espinosa & Yip, 1996).

McKinnon (1973) and Shaw (1973) were the first to spell out financial repression defining it as the set of government legal restrictions preventing the financial intermediaries in the economy from functioning at their full capacity. Generally, financial repression consists of three main elements. First, the banking sector is forced to hold government bonds and money through the imposition of high reserve and liquidity ratio requirements. This allows the government to finance budget deficits at a low cost. Second, given that the government revenue cannot be extracted easily from private securities, the development of private bond and equity markets is discouraged. Finally, the banking system is characterized by interest rate ceilings to prevent competition with public sector fund raising from the private sector and to encourage low-cost investment (Gupta, 2004). Thus, the regulations generally include interest rate ceilings, compulsory credit allocation, high reserve requirements, restrictions on capital transaction with

foreigners, quantitative restrictions on the allocation of credit and restriction on entry into banking, often combined with government ownership of major banks (political banks).

1.1.2 Financial Repression in Kenya

The study by Ngugi and Kabubo (2008) in Kenya showed that the prerequisites for financial liberalization and decontrol of interest rates were not put in place. Efficiency has not been achieved in intermediation of financial assets. This was reinforced by the oligopolistic structure of the market, where the sector is dominated by a few commercial banks. In addition, the theory of financial repression also argues for competitiveness in the market, with diversified financial assets. The study also showed that the financial markets are still in their infant stage, and the Central Bank has not yet gained independence in its operations. At the same time, the "political banks" make it difficult to successfully implement the prudential regulations issued by Central Bank.

With a free market, the fundamentals are expected to contribute substantially in explaining the variations in interest rates. However, the results indicate that the fundamentals played an insignificant role in explaining variations in interest rates. It is the monetary policy and fiscal policy activities that seem to have had significant impact on the levels of interest rates in the short run. However, in the long run the fundamentals play a major role and that both internal and external factors interact together to determine interest rates.

1.1.3 Tax and Collection Methods

A tax is a financial charge.or other levy upon a taxpayer (an individual or legal entity) by a state or the functional equivalent of a state such that failure to pay is punishable by law. Taxes are also imposed by many administrative divisions. Taxes consist of direct tax or indirect tax, and may be paid in money or as its labour equivalent (often but not always unpaid labour).

A tax may be defined as a "pecuniary burden laid upon individuals or property owners to support the government, a payment exacted by legislative authority." A tax "is not a voluntary payment or donation, but an enforced contribution, exacted pursuant to legislative authority" and is "any contribution imposed by government whether under the name of toll, tribute, tallage, gabel, impost, duty, custom, excise, subsidy, aid, supply, or other name. Taxation is the inherent power of the state to impose and demand contribution upon persons, properties, or rights for the purpose of generating revenues for public purposes. There are three tax collection methods: cadastral, at the source (before the receipt of the income) and through self-assessment (at the declaration of the income).

The cadastre method implies the use of the cadastre. The cadastre is a register of all the typical objects (land, real estate) classified according to physical features and where the average profitability of the object is determined. **Taxation at the source** is calculated and deducted at the accounting unit of the company, which pays the income of the taxation subject. In this way is deducted the tax from wages and salaries. The tax is subtracted by an intermediary—the collector (tax agent) before the receipt of the tax by the subject,

4

which excludes the possibility of tax evasion. Collection at the source is done for taxing income of employed personnel and for other relatively fixed incomes (Yaniv, 1999). **Tax collection upon self-assessment** represents the deduction of a part of the income after its receipt and implies that the taxpayer submits to the taxation authorities a self-assessment, i.e. an official statement about the income received. Taxation authorities, taking into consideration the size of the taxation object and the taxation rates, verify the accuracy of tax calculations. This method is usually applied for the taxation of non-fixed revenues and for the cases when the taxpayer has multiple income sources. Self-assessment collection is convenient for the taxpayers because it creates conditions for tax evasion due to the weakness of the taxation apparatus and due to commercial confidentiality (Marelli, 1984).

In Kenya, KRA is mandated to collect taxes from employees, employers, businesses, corporates and many more. KRA usually collect tax through several methods in which is divided into 5 categories: pay-as-you-earn tax (PAYE) which is a withholding tax on income payments to employees; withholding tax which applies to Kenyans in receipt of certain incomes e.g. dividends, professional fees, interest; advance tax which applies to Kenyans whom have Public Service Vehicles (PSV e.g. Matatus) and Commercial Vehicles; installment tax which applies to individuals and corporate bodies where the tax is not fully collected at source through PAYE, or individual's final tax liability exceed Ksh. 40,000 for the year; and turnover tax (TOT) which is usually paid by taxpayers whom are registered for TOT at the rate of 3% on gross sales per year (KRA, 2012).

1.1.4   The Relationship Between Tax and Financial Repression

Financial repression is seen as an implicit tax that generates "benefits" for government in the form of substantial amounts of government revenues, especially under high inflation. However, once it is granted that financial repression is a tax, it must also be granted that there are "costs" of repression, in the form of an array of distortions. Aim and Buckley (1998) present estimates of the welfare costs of financial repression for Turkey, a country that recent work shows has been heavily taxed by such means. A simple computable general equilibrium model is constructed and calibrated to obtain estimates of the efficiency costs of this implicit tax. The analysis shows that financial repression creates very high welfare costs whose magnitude may well exceed the revenues generated. Consequently, although financial liberalization measures should always be cautiously pursued, and a better understanding of the scale of the implicit taxes implied by government policy is very useful, the size of the latter should not serve as a rationale to discourage pursuit of the former (Aim et al, 1992).

While the theoretical analyses of the effects of controls on financial markets are clearly correct, their direct applications to policy have neglected the presence of important additional distortions in the economy. More satisfactory approaches to financial liberalization should explicitly account for these pre-existing distortions, including the ones associated with government spending and taxes (Swamy, 1994). In particular, considering the effects of government revenue constraints and the distortions associated with different forms of taxation would provide a more complete assessment of the costs and benefits of financial controls and financial liberalization.

1.2   Statement of the Problem

In the field of economic growth, financial repression and liberalization has been one of the most controversial issues in developing countries. Financial repression can be described as the situation, where governments set laws, restrictions and regulations on the financial sector in order to protect financial solidity, as well as the public from unanticipated losses. Roubini and Sala-i-Martin (1995) pointed out that numerous economists preferred the financial repression policy for several reasons. First, the strict control on the banking sector benefits the monetary authorities by enabling them to better handle their money supply. Second, it also noted that government intervention such as channeling a credit subsidy and acting as a bank for selected industrial sectors can significantly increase the efficiency of credit allocation. Moreover, directed credit programs could provide resources to high technological spill over areas. Third, under the financial repression policy, interest rates are set below market rates, which lower the cost of government debts. Conversely, numerous scholars argued that financial repression policy has negative effects on economic growth. Several factors such as the required reserve ratios and interest rate ceilings lead to an increase in the cost of financial intermediation, hence deteriorating the financial system's funneling channels to the efficient productive sectors. Moreover, if the cost of financial intermediation is high, small and medium sized corporations will need to self finance their own investment projects. This leads not only to inefficient investment but also to a misallocation of capital.

The question is why, if at all, would a government want to repress the financial system? This seems paradoxical, especially when one takes into account the well documented

importance of the financial intermediation process on economic activity, mainly via the finance-growth nexus. Besides, the fact that "high" cash reserve requirements enhances the size of the implicit tax base and, hence, is lucrative for the government to repress the financial system an alternative line of thought is derived from the works of Cukierman, Edwards and Tabellini (1992) and Giovannini and De Melo (1993). Both these studies suggested that, countries with an inefficient tax system would be more oriented towards the repression of the financial sector. Roubini and Sala-i-Martin (1995) addresses this issue in a formal fashion, using an endogenous growth framework. They indicated that, governments subjected to large tax-evasion will "choose to increase seigniorage by repressing the financial sector and increasing the inflation rates."

From this background, the relationship between tax and financial repression is key to be determined in Kenya. The researcher is therefore motivated to bridge the knowledge gap by determining whether there is a relationship between tax and financial repression in Kenya.

1.3   Research Objective

The objective of the study will be to determine whether there is a relationship between tax and financial repression in Kenya.

1.4   Value of the Study

To the government, the findings of this study will be of great use to the government of Kenya. First, the government policy makers may use the information to develop new policies or make reforms on the existing ones. Secondly, the study will assist the

government to develop business strength. Thirdly, the study will assist in protecting and regulating the sustainability and usage of natural resources. Fourthly, the information will help to enforce and regulate fair and responsible business practices such as monitoring monetary policy, giving consumer protection and regulating banking practices and finally, the study will assist the government of Kenya to provide public goods and services for the well being-of the community as a whole.

Scholars and the academicians, this will be of great use to the scholars and the academicians as they carry out their research as it will add to the already existing literature on tax concepts. Secondly, the study will provide an insight as to the various tax studies that may have an effect on the behavior of human. Thirdly, the study will also be of great use to the scholars as it will also provide an insight into the existing theories with regards to financial restriction and lastly, it assist in determining whether there is actually a correlation between tax and financial repression and hence adding to the already existing literature on the concept.

CHAPTER II

LITERATURE REVIEW

2.1   Introduction

This chapter reviewed the available literature on tax and financial repression. It reviewed studies by other scholars covering tax and financial repression. The chapter has revealed various theories of taxation in finance literature and the reasons for financial repression.

2.2   Theories of Taxation

2.2.1   Ability to Pay Theory of Taxation

Kendrick (1939) suggests that the phrase "ability to pay" has a good and honest sound. It says that money for public expenditure should come from "him that hath" instead of "him that hath not." In practice, this principle means much more than the levy of taxes on sources from which that they can be paid. If it were so easily satisfied, most taxes would be levied according to ability to pay. The usual and indeed the only serious justification of ability to pay is on the grounds of sacrifice.

The payment of tax is viewed as a deprivation to the tax payer. The tax payer might have spent the money for his own purposes but instead must turn it over to the public treasury from which it will be expended for social ends. This principle holds that taxes should relate with the people's income or the ability to pay that is people with greater income or wealth and can afford to pay more taxes should be taxed at a higher rate than people with less wealth, excluding individual income tax (Bon, Remotin & Uy, 2007).

2.2.2 Benefit Received Theory of Taxation

This theory states that the recipients of the benefits from the government should recompense the government in proportion to those benefits. This theory assumes that the government is a formal arrangement entered into by the citizens in order to facilitate the buying, selling, and production of needed goods and services. This principle holds that the individuals should be taxed in proportion to the benefits they receive from the governments and that taxes should be paid by those people who receive the direct benefit of the government programs and projects out of the taxes paid (Bon et al, 2007).

2.2.3 The Expediency Theory of Taxation

This theory states that it is wisest for the government to collect revenues in that manner which will provoke least opposition from the public in general. In other words, its best policy to "pluck the goose that squawks least." This principle states that income, wealth, and transaction should be taxed at a fixed percentage; that is, people who earn more and buy more should pay more taxes, but will not pay a higher rate of taxes (Bon et al, 2007).

2.2.4 The Incidence Tax Theory

Tax incidence theory is the investigation of the distributive effects of taxes. The theory is therefore applied distribution theory in which the focus is on how various tax regimes affect factor returns and commodity prices. Bhatia (1982) explain that taxes have a direct impact on the level of effective demand and employment. Taxes affect work incentives,

11
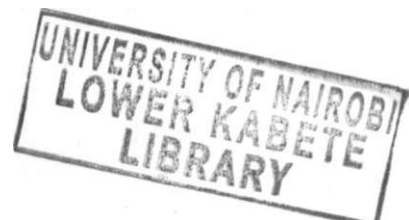
the amount of savings and the level and pattern of investment. Some taxes distort the allocation of resources and lead to inefficiencies. The theory explains that the burden of a proportional income tax that is proposed on all income is proportional to a household's share in national income. On the other hand, taxes are that do not apply to all types of income, or to al commodities, change relative commodity prices, influence factor use in particular industries and change the production structure of the economy.

2.3   Characteristics of a Tax

According to Holman and Neandis (2006) there are various characteristics of tax which include; firstly, tax is an enforced contribution, secondly, its payment is not voluntary nature, and the imposition is not dependent upon the will of the person taxed. Thirdly, tax is generally payable in cash. This means that payment by checks, promissory notes, or in kind is not accepted. Fourthly, tax is proportionate in character. That is, payment of taxes should be based on the ability to pay principle; the higher income of the tax payer the bigger amount of the tax paid. It is levied (to impose; collect) on a person or property. There are taxes that are imposed or levied on acts, rights or privileges excluding documentary tax.

2.4   The Characteristics of a Good Tax System

Aim and Torgler (2006) explain that the characteristics of a good tax system should be, first, a good tax system should lead to fair and equal distribution of wealth in the community; second, it should be composed in such a way that it yields sufficient revenue to the government; thirdly, the cost on collection of taxes should not be excessive,

fourthly, the burden of taxes should be distributed in proportion to the ability of the tax payer, that is, it should be progressive in character. Fifth, taxes should be levied at such a time or in the manner which is most likely to be convenient for the tax payer to pay it. Sixth, a good tax system should be fairly elastic. Seventh, there should be certainty with regards to the time and the amount to be paid to the government and lastly, the system should be fairly simple and easy to administer.

Adam Smith (quoted in Lymer & Oats, 2008: 43) proposed four canons of taxation in the Wealth of Nations in 1776. The four canons or principles include equity, certainty, convenience, and efficiency. On equity, Smith explained a tax should be seen to be fair in its impact on all individuals in the nation. For Adam Smith, the central tenant of a fair tax system was that the "subjects ... contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state". On certainty, Adam explains that taxes should not be arbitrary. The tax payer should know his or her liability and when they are due and also where to pay for the taxes. For convenience, he postulated that a tax should be made easy for tax payers to pay what they owe. Tax efficiency means that the tax system should not have an impact on the allocation of resources (revenues) from taxation and that the tax should be cheap for the government and individuals to administer.

2.5   Financial Repression as Optimal Tax Policy

The essential features of financial repression are the distortions on inter temporal terms of trade faced by private individuals, and the distortions in their portfolio allocation decisions. These features are best highlighted in the standard two-period Fisherian model of an open economy. Consider an economy populated by identical consumers-investors maximizing a utility function of first and second-period consumption. Government spending, which occurs in the first period only, also yields utility (but the utility function is separable in consumption and government spending), Giovannini (1993).

In the first period individuals purchase the consumption good, domestic assets and foreign assets. In the second period they use the net-of-tax return on their investment, and their second-period endowment, to purchase the consumption good. Since the country is small, its own savings and investments do not affect the world rate of interest. The model is cast in real terms (Bernascon & Zanardi, 2002). The absence of nominal aggregates like the exchange rate rules out important non neutralities from the interaction of nominal interest rate ceilings and the rate of currency depreciation and inflation but does not affect the generality of the results. We consider first the extreme case where individuals' endowment is fixed and exogenous, but the government has no means of raising revenue, except through the distortions resulting from financial repression. Anderoni and Jonathan (1998) explain that the government spends only in the first period, and finances it's spending by borrowing domestically and abroad. Financial repression is thus represented by a tax or on the second period value of foreign assets owned by domestic residents.

2.6   Reasons for Financial Repression

There are several shortcomings of financially repressed systems. Dooley and Mathieson (1987) argue that the most obvious shortcoming is the erosion of the tax base of a country since those with deposits are attracted to alternative markets with better yield for their deposits while borrowers who are unable to obtain credit from the formal domestic markets due to credit rationing opt for the same markets. These alternative markets are in most cases informal and are therefore no subject to taxation found in formal financial markets. These are fondly referred to as "Jua Kali" markets in Kenya.

Literature advance several reasons to explain what motivates governments in developing countries to resort to financial repression. Montiel (1995) postulates that these governments fear the oligopolistic competition which exist in the financial sector (especially the banking sector) where few financial institutions dominate the market. This oligopolistic competition encourages opportunistic behavior thereby forcing governments to resort to financial intermediation. In such cases, oligopolistic owners can easily abuse interest rates if left for determination by the free markets, thereby causing further fear in the governments.

Financial repression is also used as a vehicle by the government to direct commercial banks to lend to specific activities and at the same time provide the same credit at subsidized rates, usually below the market rate. This enables governments to borrow cheaply from such windows to finance budget deficits from time to time. By placing high reserve requirements on commercial banks, governments ensure that more funds are ready for borrowing by the government at the same subsidized rates (Chamley &

Honohan, 1990). Another main reason why governments resort to financial repression is because of revenues generated from taxing financial intermediation. The government uses taxation to generate funds to fund expenditure for example by levying inflation tax on currency and imposition of interest rate ceilings on loans and deposits to private sector. Montiel (1995; pg. 19) asserts that the volume of resources or revenues generated by the government from the financial system in place at a particular time is a good measure for financial repression in a country. He writes that "..using the magnitude of government revenue from financial repression as an indicator of the intensity of repressive policies toward the banking system, the historical record suggest that sub-Saharan African countries fit squarely within the financial repression paradigm".

2.7   Tax Reforms and Financial Repression in Kenya

Both implicit and explicit taxes widen the interest spread as they increase the intermediation costs. These include: reserve requirement, withholding taxes, stamp duties, transaction taxes, and value added taxes, profit taxes and license fees. Reserve and liquidity requirements, mandatory investment levels, and interest controls are categorized as implicit taxes (Gupta, 2005). A reserve requirement with no interest payment tends to have a higher opportunity cost as it squeezes the excess reserve available for banks to advance credit, reducing the bank's income earning asset. Explicit taxes, just like the implicit taxes on the financial intermediation process, may provide a negative effective protection to the domestic financial system and encourage financial intermediation abroad especially if there is tax discrimination.

Discriminatory taxation of financial intermediation reduces the flexibility of the system by significantly reducing the funds for discretionary are lending. Tax discrimination also leads to financial sector "instability by driving intermediation into the informal, less regulated and less taxed part of the market. The presence of explicit and implicit taxes also discourages the development of the inter-bank market, which can play a major role in improving resource allocation and the effectiveness of monetary policy. With heavy taxation at the interbank market, all financial transactions make short-term overnight borrowing uneconomical, and increase the reliance on central bank discount facilities that provide inexpensive and unlimited loans to banks in need of funds (Ngugi, 2001).

In their study, Kinyanjui and Eiud (2003) addressed that the revenue structures of most developing countries have not been as productive as desired. Too often the growth in revenue has failed to catch up with government spending pressures, a situation that has occasioned huge imbalances between the demand and supply of public budgetary resources. Generally, tax reform in developing countries involves broad issues of economic policy as well as specific problems of tax structure design and administration Musgrave, (1987). In this sense, tax reform has to grapple with complementarities between revenue structure and development policy including issues such as the impact of alternative taxes on saving and investment and the resultant challenges for macro balance (domestic and foreign) of the economy. Reforms may also address the issue of equity in the distribution of the tax burden as well as composition of the tax structure. There is, as well, the question of the administrative adequacy of the tax system—-usually approached within the wider context of political structures and feasibilities.

They concluded that though the reform experience seems encouraging, there is still scope for improvement. The most rigid tax system was VAT. Empirical analysis indicates that tax reform has raised the productivity of the tax system with the exception of sales tax/VAT. The low elasticity of sales tax/VAT in both periods is surprising given that the base grew faster than income (Ngugi & Kabubo, 2008). This suggests collusion between the tax collectors and the taxpayers among other things. Despite substantial reform, significant review and rationalization of the rates under VAT, further improvements are required in the area of reduction of rates and exemptions, increasing VAT administration capacity through a higher budgetary outlay, increasing tax collectors' salaries and reviewing collusion penalties upwards, and strengthening the development of audit skills. Additional capacity is required in areas such as automation, audit and risk profiling, and general skill development.

2.8   Review of Empirical Studies

Gupta (2006), using a pure-exchange- and a production-economy in an overlapping generations framework, calibrated to Southern European economies, shows that higher tax evasion would cause a benevolent social planner to optimally increase the tax rates, when implicit taxation is also available as a source of revenue. The optimal reserve requirements, however, continued to be at zero, implying the inability of tax evasion to explain financial repression. The model suggests that, the best way to reduce tax evasion is by increasing the penalty rates, in case taxes cannot be reduced due to budgetary pressures. And, an increase in the degree of evasion within the country, resulting from lower penalty rates or higher corruption, should be followed by an increase in the reserve

18

requirements and a decline in the money growth rate as part of a welfare maximizing behavior of the consolidated government.

However, higher tax evasion due to lower tax rates, causes the growth rate of money supply and the reserve requirement to move in the opposite direction. Therefore, there exist asymmetries in optimal monetary policy decisions, depending on what is causing a change in the degree of tax evasion. More importantly though, tax evasion and financial repression are positively correlated, if and only if, the change in the former results from an alteration in the penalty rate or the level of corruption (Richardson, 2006).

Gupta and Ziramba (2008) in their model conclude that the nature of the relationship depends on what causes the higher levels of tax evasion: when the cause of tax evasion is increased corruption or a lower penalty rate, one can indeed expect financial repression to intensify. However, if tax evasion rises because of a higher tax rate, the severity of financial repression eases. Previous studies have treated tax evasion as behaviour that is unaffected by the structure of the economy and policy action. The model suggests that higher levels of tax evasion, when caused by reduced penalty rates or more pervasive corruption, creates a policy response in the form of more onerous reserve requirements and a rise in money supply growth. But it also shows that tax evading behaviour that is prompted by a hike in tax rates results in a drop in reserve requirements and in money supply growth.

Sandmo (1972) suggested in a model that no account is made of the taxpayer's "real" decisions; his labour supply and therefore his gross earnings are taken as given, and the

same is true of his income from capital. The model pictures the taxpayer at the moment of filing his income tax return: How much of his income should he report and how much should he evade? One obviously unrealistic simplification in this model is the assumption that all income is equally unknown to the tax collector. This is clearly not the case; in most countries earnings are reported to the tax authorities by the employer, so that this part of his income cannot in fact be underreported by the employee - unless he acts in collusion with his employer. The analysis should therefore be interpreted as applying to that part of his income which the taxpayer can in fact evade without certainty of detection.

Roubini and Sala-i-Martin (1995) reflected in their paper presents an analysis of the relation between policies of financial repression and long-term growth. A model of financial repression, inflationary finance and endogenous growth was presented and the model suggests that governments might choose to repress the financial sector because this policy increases the demand for money and delivers easy inflationary revenues. They also showed that policies of financial repression reduce the growth rate of the economy. They also presented empirical evidence on the relation between measures of financial repression and growth in a large cross-section of countries. The implications of the theory are confirmed in that, after controlling for other determinants of growth, various measures of financial repression affect growth negatively, inflation rates (and banks' reserve ratios) and growth are negatively related. Also, they found out that, after controlling policies of financial repression, a regional dummy for Latin America in growth regressions tends to be insignificant. This suggests that a fraction of the weak

growth experience of the Latin American countries might be explained by the policies of financial repression followed by the governments in this region.

Border and Sobel (1987), address the simultaneous definition of the optimal audit and tax schedules, assuming that taxpayers are subject to limited liability and risk neutral, and that the enforcer seeks to maximize net tax revenue. The main finding of this literature is that, at the optimum, effective taxation is regressive and the audit function is non-increasing in reported income. Hence, the repercussions of noncompliance for effective taxation carry over to this more general set-up. An interesting insight by Border and Sobel (1987) is that when sanctions are upper-bounded and taxpayers are risk neutral, it is optimal to audit taxpayers with a very small probability and to provide infinite rewards for truthful reporting.

The so-called 'principal-agent' approach to enforcement discussed in the foregoing paragraphs constitutes one of the most general frameworks for analyzing tax evasion and its relation to public policy. The main pitfall is it's extremely demanding assumptions concerning the enforcer's ability to devise and execute the optimal policy. Indeed, one may argue that actual tax enforcers do not always possess the features that would qualify them as 'rational'. Like other branches of the public administration, they often have conflicting or ill-defmed incentives, they may be governed by 'process'- rather than 'outcome'-oriented rules, and they are likely to have short-sighted and perhaps multiple goals (Riahi-Belkaoui, 2004). This suggests that the enforcer may tend to act myopically and just "react" to impulses from the economic system. Thus the enforcer may decide

auditing policy taking the amount of evasion in the economy as given and aiming to maximize detection, disregarding deterrence.

This view, based on the assumption that the tax enforcer cannot credibly precommit to any specific auditing policy, is forcefully advanced by Reinganum and Wilde (1985). Their argument is that since actual audit rates are not observed by taxpayers, the enforcer has an incentive to relax any announced auditing policy once taxpayers have reported their incomes, that is, after the policy has performed its deterrent effect. Since taxpayers will anticipate the enforcer's ex-post deviation, they will not rely on the announced policy and will engage in greater evasion. The bottom line is that, in equilibrium, audits will be performed on likely evaders rather than on compliant (that is, deterred) taxpayers. This would appear to be a most reasonable prediction, and it tallies with actual enforcement practices.

The essence of models of optimal taxation is to clarify the respective roles of equity and efficiency considerations in the design of tax systems. A framework in which the equity efficiency trade-off becomes particularly transparent is that of choosing an optimal linear income tax, as in Sandmo (1981). The model has two groups of taxpayers, the evaders (or, more accurately, the *potential* evaders) and the non-evaders. The non-evaders' behaviour is modeled as in the standard textbook analysis of labour supply, while the evaders are described by the model of Section 6 above 19. The social welfare function is the utilitarian weighted sum of utilities, where the weights can be varied to give more or less importance to the utility of the evaders. The problem related to the government

budget constraint is solved by assuming that the evaders' subjective probability of detection is equal to the actual frequency of audit - an empirically dubious but analytically useful simplification. There is assumed to be an exogenous revenue requirement, and in addition the government needs resources to cover the administrative costs of the tax system, which in this context is simply equal to the costs of discovering tax evasion.

2.9   Summary and Conclusion

While quite a number of studies have investigated the relationship between tax and financial repression, most of these studies have been done in developed countries with a few being done in developing countries. In Kenya, the study by Kinyanjui and Eiud (2003) addressed the fact that the revenue structures of most developing countries have not been as productive as desired. Too often the growth in revenue has failed to catch up with government spending pressures, a situation that has occasioned huge imbalances between the demand and supply of public budgetary resources. Generally, tax reform in developing countries involves broad issues of economic policy as well as specific problems of tax structure design and administration (Musgrave, 1987).

Tax exists everywhere. Whether there is a relationship between tax and financial repression or not, policies directed toward tax could be very different. However, few papers address this interesting and important question. Roubini and Sala-i-Martin (1995) showed that in countries where tax evasion was large the government would choose to increase seigniorage by repressing the financial sector and increasing inflation rates. This

government policy tended to reduce the amount of services that the financial sector provided to the economy, and thereby resulted in lower rates of growth. From the discussions, it is evident that limited studies if any have been conducted on the relationship between tax and financial repression in Kenya. This study therefore seeks to fill this research gap by investigating whether there is a relationship between tax and financial repression in Kenya.

CHAPTER III

RESEARCH METHODOLOGY

3.1   Introduction

This chapter articulated the research methodology and covered research design, population, and data collection tools and data analysis techniques. All these were employed in efforts to realize the research objectives. They were carefully chosen to ensure accuracy, reliability and get the desired results.

3.2   Research Design

Research design refers to the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in the procedure Babbie (2002). This study employed descriptive study design. Descriptive statistics such as percentages were used to quantitatively describe the main features of the data collected. This is because descriptive statistics aim to simply describe what the data shows unlike inferential statistics which try to reach conclusions about a population from a sample. According to Coopers and Schindler (2004) descriptive studies are more formalized and typically structured with clearly stated hypotheses or investigative questions.

3.3   Target Population

The target population of the study was the statistics from Central Bank of Kenya website which details various factors considered useful as economic indicators for the country

including the amount of tax collected in a year split by month-to-month basis. In Kenya, the budget is read every year and it provides the amount of tax collected from all tax heads including Corporate Tax, Withholding Tax, Value Added Tax, Pay as You Earn and Customs and Excise duty.

3.4   Data Collection

Secondary data was be used for this study. Secondary data can be defined as data collected by others, not specifically for the research question at hand. The data was collected from published budget readings for the five year period from 2007 to 2012 and summarized on Central Bank of Kenya website. The researcher considers the period adequate to provide reliable information. The study also relied on data from research publications by KPMG, a leading audit and policy research firm in the country.

3.5   Data Analysis

The data collected was systematically organized in a manner to facilitate analysis. Data analysis involves preparation of the collected data, coding, editing and cleaning of data in readiness for processing using Statistical Package for the Social Sciences (SPSS) software. A multiple regression model will be used for it allows simultaneous investigation of the effects of two or more variables. The model shall establish the relationship between tax and financial repression. Financial regression shall be measured in terms of interest rate ceilings, credit allocation, reserve requirement and foreign

exchange differences. The equation representing the algebraic expression of the analytic model applied is as follows:

$$Y=Po + |Mnt+ p_2Crd+ p_3Req + p_4Forex+7r$$

Where:

Y = the dependent variable, Tax Collected

p = Regression coefficient

Bo = the Intercept, the value of Y when X values are zero.

Int = Interest Rate

Crd= Credit allocation

Req= Reserves requirements

Forex= Foreign exchange differences

7t= Error term normally distributed about the mean of zero

The dependent variable will be the amount of tax collected whereas the independent variables will be the measure of financial repression of the economy.

Further, the relationship between the variables was determined using Pearson Correlation analysis. May (2004) define a correlation as the relationship between two variables where change in one variable is accompanied by predictable change in another variable. The coefficient of determination, r^2, is a measurement of the variation in the dependent variable, y, due to a change (variation) in the independent variable, x ($0 < r^2 < 1$). The population correlation coefficient, p, is estimated by the sample correlation coefficient, r. The correlation coefficient (r) provides the researcher with an idea of the extent of the linear relationship between the variables. The correlation coefficient (r) varies between

positive (+) one and negative (-) one. A positive correlation coefficient (r) indicates a positive linear relationship and negative correlation coefficient (r) indicates a negative linear relationship between the two variables

CHAPTER IV

DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1   Introduction

In this chapter, the data findings were presented. This study used secondary data covering the period from 2007 to 2012 for analysis. The data was sourced from Central Bank of Kenya and KPMG Most of the variables used were in logarithmic form such as the real GDP, the real exchange rate, nominal tax collected, and average interest rates.

4.2   Tax Collection in Kenya

The level of collecting tax in Kenya has significantly improved in the past years thereby increasing tax revenues considerably due to increased tax efforts by Kenya Revenue Authority. The government of Kenya uses both taxation and other forms of revenue in order to maintain the state by obtaining adequate income for development. About 70 per cent of Kenya's domestic income is generated from income tax (on companies and individuals) and value added tax (VAT). However, the gap that exists between tax collected and the capacity is an indicator of how far collection inefficiencies and tax evasion are entrenched.

Table 4.2.1: Tax Effort and Capacity in Kenya

J^j)eofTax__	Year	Rev. Tax Capacity	Rev. Tax Effort	Compliance Percentage
Personal Income	2007/2008	113,584	89,368	66.90%
Excise Tax	2007/2008	47,689	34,050	71.40%
Import Duty	2007/2008	66,406	32,539	49.00%
Corporate Tax	2007/2008	163,164	57,434	35.20%
VAT	2007/2008	198,228	111,008	56.00%

Source: CBK, 2012

The findings show that the potential revenue that remains uncollected results to a tax gap of 55.1 per cent. This translates into loses of over 264 billion shillings in lost tax revenue due to tax evasion and other inefficiencies. Kenya can therefore be characterized as a low tax collection and a high tax effort country - this means that high taxes are imposed on formal sector. Although Kenya has reduced the corporate taxes the tax burden in the country remains higher than in many middle income countries even within the East African Community (EAC) as explained Karingi and Wanjau (2004). As a result tax payers in Kenya are unhappy with the high rate of taxation especially on VAT and income tax which has seen the government capping income tax at 40 per cent. All these factors point to financial repression by the state.

4.3   Macroeconomic Indicators

Table 4.3.1: Year 2011/2012 Macroeconomic Indicators

Indicator	Figures
GDP current prices (USD million)	35,557
Real GDP growth rate (2011/2012)	4.40%
Real GDP growth rate (2010/2011)	5.80%
Population (million)	39.5
Overall inflation rate (average)	14%
Tax revenues (USD million)	8,463
Gross Domestic Debt 2011 (USD billion)	9.09
Gross Domestic Debt 2012 (USD billion)	10.39

Source: KPMG, 2012

The real GDP expanded to 5.8% in 2011 with high inflationary rates peaking at 14% while tax collections increased considerably in the same period. These were positive indicators for the country pointing to a modest growth with high taxation to fund domestic expenditure. Domestic debt also expanded significantly, an indication that the government is relying more on domestic funding through taxation and reserve requirements.

Table 4.3.2: Key Indicators

Indicator	2010	2011
Balance of Trade (% of GDP)	21.1	26.6
Borrowing (% of GDP)	5.2	9.9
Savings as a percentage of GDP	10.6	12.2
Inflation rates	4.5	18.9
Commercial banks interest rates - nominal	13.9	20.0
Real wages - private sector/month	30,841.0	27,979.0
Tax revenues - growth %	18.2	16.3

Source: KPMG, 2012

The data indicates that as taxes grew by almost 20 percentage points in 2010 and 2011, borrowings and savings by individuals and corporate were minimal possibly due to the prevalent high interest rates charged by commercial banks on borrowings and corresponding low interest rates on deposits. According to CBK (2012) commercial banks in Kenya hold the biggest share of investment in treasury bills and bonds. Therefore, the highest outstanding government debt (domestic debt) is held by commercial banks at 52.1% as at June 2012 followed by pension institutions at 22.7%. This high uptake of domestic debt has resulted in high cost of domestic debt because of rise in interest rates on loans and other charges on bonds and bills.

4.4   Regression Analysis

The ordinary least square regression was used to determine the factors (predictor variables) affecting tax collection. The results are shown in table 4.6.1 below:-

Table 4.4.1: Model Summary - Coefficients of Determination

Model	R	R-square	Adjusted R Square	Std error of Estimate
I	0.543	0.295	0.248	126352.091

Source: Research findings

The result of the study shows that the value of R-squared is 0.295. This means that independent variables investigated in the study (interest rates, foreign exchange, bank reserves and credit allocation) account for or explain 29.5% of the dependent variable, tax collection. The remaining 70.5% are explained by other variables which are not under study (which could include GDP, the tax structure, tax exemptions, and tax evasion). The Adjusted R-squared was also significant at 24.8% though low, reflecting that some

factors under consideration have very low effects on tax collected. The regression equation therefore appears useful for making predictions in tax collection, though largely dependent on other factors-since R-squared of 29.5%% is considered significant but low.

The regression coefficients are both individually and jointly statistically insignificant, with low effects in the current environment though positive. From the p-values (value of 0.05 recommended) and t-Stat (value of 2 is recommended), it can be observed that the independent variables interest rate affect tax collection more significantly, (p-value =0.15); followed by exchange rates (p-value=0.29), while bank reserves was the lowest (p-value=0.64) as shown in table 4.4.2 below.

Table 4.4.2: Multiple Regression Analysis

	Coefficients	Standard Error	t -Stat	P-value
Intercept	-276,680.46	649,727.69	-0.43	0.67
Interest Rate (Int)	20,873.17	14,222.62	1.47	0.15
Exchange Rate (Forex)	-4,459.77	4,163.89	-1.07	0.29
Reserves (Req)	0.46	1.00	0.46	0.64
Credit Allocation (Crd)	0.39	0.63	0.61	0.55

Source: Research findings

$y = -276680.461 + 20873.165*Int - 4459.774*Forex + 0.464*Req + 0.385*Crd$

The multiple Regression results also show that each of the four independent variables has positive but insignificant beta value. This is evidenced by the relevant t-values coupled with the p-values for each independent variable being more than 0.05, thereby indicating the significance level for each independent variable. The study shows that tax collection **is** insignificantly affected by the four independent variables investigated and that all the

four independent variables are positively correlated with the dependent variable under the study. This is also verified through ANOVA statistics which gives a p-value of 0.000 as shown in Table 4.4.3 below.

Table 4.4.3: Analysis of Variance

ANOVA

Source	DF	SS	MS	F	P-value
Regression	4	4.00341E+11	1.0009E+11	6.2690942	0.000
Residual	60	9.57891E+11	1.5965E+10		
Total	64	1.35823E+12			

Source: Research findings

Results of multiple regression analysis minus credit allocation variable returned stronger p-values (much closer to 0.05 as recommended) with interest rate being highest (0.026) and an equally stronger t-value (2.27) followed by bank reserves and exchange rate movements in that order. This possibly is an indication that credit allocation did not play a major role in tax collections in Kenya. The results are presented in Table 4.4.4 below.

Fable 4.4.4: Multiple Regression Analysis

Model 2	Coefficients	Standard Error	t Stat	P-value
Intercept	73,778.60	296,180.82	0.25	0.80
Interest Rate (Int)	25,983.64	11,402.00	2.28	0.03
Reserves (Req)	0.97	0.56	1.74	0.09
Exchange Rate (Forex)	-5,240.46	3,939.62	-1.33	0.19

Source: Research findings

y = 73778.6 +25983.637*Int +0.968*Req -5240.461 *Forex

4.5   Correlation Analysis

The Correlations procedure computes the pair wise associations for a set of variables and displays the results in a matrix. It is useful for determining the strength and direction of the association between two variables. From the Pearson Correlation analysis, given a set of data   with n data points, the slope, y-intercept and correlation coefficient, r, can be determined using the following formula:

$$»ZM'Z^X1>$$

The correlations in this study were calculated using SPSS to generate all the correlation coefficient, r, between tax collection and other variables considered like interest rates, exchange rates movements, credit allocation and bank reserves and also between variables themselves. The illustrations of the correlations calculations are represented in Table 4.5.1 below.

Fable 4.5.1: Results of Correlation Analysis

	Tax Rev	Int. Rate	Exch. Rate	Reserves	Credit Alloc
Tax Revenue	1.000	0.504	0.243	0.417	0.487
Int. Rate	0.504	1.000	0.407	0.623	0.762
Exch. Rate	0.243	0.407	1.000	0.869	0.737
Reserves	0.417	0.623	0.869	1.000	0.938
Credit Allocation	0.487	0.762	0.737	0.938	1.000

Source: Research data (sig at 0.005 confidence level)

The correlation matrix confirms that all the variables have a positive relationship with the dependent variable, tax collection, with interest rate showing the most significant coefficient (0.504) and exchange rate the lowest at 0.243. This indicates that there is a

positive relationship between the variables though insignificant. The results also showed that the independent variables (interest rates, exchange rates, bank reserves, and credit allocation) also had effect on each other with bank reserves showing the strongest correlation with credit allocation (0.938) followed by the correlation coefficient of 0.869 between exchange rates and bank reserves.

4.6 Findings and Discussions

The central argument to literature was that financial repression offers alternative to taxation as a means to raise revenue for the government and that financial repression tend to erode the tax base of some countries with high tax imposition on the formal sector (corporate and formally employed individuals) to raise government revenues (McKinnon, 1973). This study found that the tax base for Kenya is very broad which started with the reform recommended in 2003 by the government. Currently tax collection grows by over 15 billion shillings per year through improved tax compliance, with corporate tax and pay-as-you-earn (PAYE) forming the bulk of taxes. With over 70 percent of domestic income generated through taxation, financial repression still seems evident in the Kenyan economy despite liberalization of the financial sector.

Literature also argued that for financial repression to take place, the government must place quantitative restrictions on the allocation of credit and set high reserve requirements for commercial banks (Fry, 1997). The study established that credit allocation to private sector in Kenya is not restricted by the government at all. Though it seems that the commercial bank reserves have grown in leaps and bounds to more than 1.666 trillion

shillings, the current reserve requirements for commercial banks is 5.25 per cent of the total deposits of each bank. The growth in bank reserves is therefore attributable to other factors such as massive expansion undertaken by commercial banks and the reform of the financial sector that has opened banking for those who were previously unbanked. The growth is thus natural and not necessarily setting high reserve requirement by the Central Bank. However, the steady rise in bank reserve has provided a basis for implicit taxation by the government through seigniorage.

It was also noted that financial repression is caused by direct taxation on individual and corporate taxes and also through implicit taxes through mandatory and relatively high commercial bank reserves. The study further established that the tax collection in Kenya is influenced by various factors like interest rates, bank reserves, credit allocation and exchange rate movements. However, these factors only explained 29.5% of the factors that affect tax collections. The effect therefore considered low in relation to the remaining 70.5% other factors that -influence tax collections. This conforms to the argument in literature review that tax collection alone may not be sufficient to explain financial repression in a country since its effectiveness or otherwise is affected by multiple factors including the GDP of a country, the tax structure, and inflationary rates.

4.7   Summary of findings

The analysis revealed that while financial repression which is influenced by interest rates, bank reserves, credit allocation and exchange rate movements can be caused by direct taxation on individual and corporate taxes, the explanation is positive but not significant.

also established that there are other factors that affected tax collections which

unted for 70.5% ii

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1   Introduction

The final chapter of this study summarizes the findings and conclusions. It also provides suggestions for further research. The overall goal of the study was to determine the relationship between tax and financial repression in Kenya. The results of the study are presented and discussed in the proceeding sections.

5.2   Summary of Findings

The process of fund generation in developing countries characterized by high tax rates and increased bank reserve ratios (seigniorage) point to a process where a government attempts to legitimize tax "collection and disbursement of the revenue. High tax charges like the ones witnessed in Kenya and implicit taxes placed bank reserves result in financial repression being pursued as an optimal policy of the government. The rate of taxation is also very high especially on income taxes and VAT. The two taxes have seen tremendous growth in income generated from taxes in the country which is growing at more than 15% per annum. However, what is more perplexing is the tax gap that exists where the country losses more than 55.1% in taxes that remains uncollected. This shows there is a large portion of citizens who either avoid paying taxes or rather the government lacks the capacity to broaden tax base further to include these sectors in tax payment.

The study also found that tax collection is affected by the prevalent real interest rates, exchange rates movements, credit allocation and mandatory bank reserves. The effect of these four variables was significantly positive but low at only 24.8% (Adjusted R-squared). This means that other factors such as GDP and the structure and composition of tax also affected tax collections. Actually the other factors not considered here affected tax collection more than 75 per cent. Interest rate was more correlated with tax collected at 0.504 while exchange rate movement was the lowest at 0.243. There is therefore the need to look deeply into-the rate of interest offered on credit as it increases taxation significantly.

Similarly, the study established that tax collection is a factor encouraging financial repression in the country. Despite the fact the the significance was quite low, the relationship is positive and as such points to the fact that the government relies on taxation and seigniorage (high bank reserves) to generate funds domestically. The more the direct taxes on income, VAT, withholding taxes on dividends and other forms of high taxation prevalent in the country, the more financial repressed the financial sector in the country remains.

5.2   Recommendations

This study recommends the following measures to ensure that financial repression is contained and fully liberalized market is realized in the country. First, better development of money and capital markets in the country is recommended. This will ensure that there is increased competition in securities markets, it will also encourage secondary market

development and improve incentives for private equity. Secondly, broaden the range of domestic sources of income and switch to market based indirect methods of money supply controls. Overreliance on taxation as the main source of domestic financing of expenditure should be avoided. Similarly, the government should avoid the frequent use of government bonds to mop up excess liquidity in the market as it increases implicit taxation tendencies.

Thirdly, the government should abolish or relax interest rates controls similar to the one where the government increased base lending rates to 18% in early 2012 resulting to an increase in commercial bank lending interest rates to levels not seen before in the country. Flexible interest rates promote genuine competition with borrowers and savers getting genuine returns and lastly the government should overhaul the current tax structure and broaden the tax base. It should introduce more flexible taxation methods based on income percentages and introduce other tax bases that will convert tax capacity to actual. This will help to reduce cost of taxation and tackle corruption and ensure efficient management of tax exemptions.

5.3   Limitations of the Study

The first limitation of the study is the fact that the study only considered four factors that influence tax collection in the country and failed to factor in gross domestic product (GDP) which is a major determinant of tax collected in any country. This could have affected the accuracy of the findings and possibly explain the low R-squared values registered in the study.

Secondly, the study did not consider the structure of tax in Kenya, and as a result a wrong assumption was made that the whole amount of tax collected is affected by the variables **under consideration,** yet for example, income tax rates do not fluctuate since **it**'s a **percentage of** income generated.

The other major limitation was the overreliance on secondary data to carry out the research and infer findings. The study failed to collect fresh data from primary sources through interviews, observations or by the use of questionnaires. It therefore suffered from lack of fresh findings that may not be in the public domain in as far as exploring the factors affecting taxation and leading to financial repression are concerned.

The population of the study was also confined to data from Central Bank. This greatly affected the scope of the study due to the fact that Central Bank of Kenya is controlled by the government and is yet to be fully independent from controls by the Ministry of Finance. The data provided may thus be manipulated and may not present the correct position. The scope of the study ought to have been broader to ensure comparative data was obtained.

Finally, in absence of financial repression, an economy is largely described as fully liberalized. This presents an opportunity for a study to be carried to determine the role of governments in fully liberalized financial system and that of semi-liberalized financial system like that of Kenya. ~

5.4   Areas for further research

Since this study was concerned with establishing the relationship between tax collection and financial repression, there is need for further research to be carried out to analyze the relationship between gross domestic product (GDP) and cost of tax collection. This will help to better explain the relationship between financial repression and tax collection in developing countries.

Literature review argued that financial repressed systems do not auger well with financial liberation and therefore the optimal growth of such economies as witnessed in developing countries. A further research should therefore be carried out to determine the economic relevance of financial repression in Kenya to prove whether financial repression is entirely bad for an economy or if at all it results in some positive aspects of economic growth.

The regression analysis returned a much stronger relationship between tax collection and interest rates in the country. Further, literature review postulated that high interest rates prevalent in a financial system encourage financial repression. A further research should therefore be done to establish the relationship between exchange rates and growth the growth of financial system in Kenya.

5.5   Conclusion

The study established that implicit taxation in terms of bank reserves, high taxation and cost of tax prevalent in the Kenya point to instances of financial repression in the country.

The mandatory commercial bank reserve that is placed with Central Bank in the country is currently at 5.25% as indicated by CBK (2012). With the current expansions and growth in the banking sector, these figures have tremendously increased, thereby availing to the government huge deposits which it accesses at below market rate. High taxation especially on income tax and VAT is also a major factor.

The theory described financial repression as composed of systems with policies that distort domestic financial markets, including inflexible interest rates, high reserve requirements (which allows the government to borrow at below market rates), and at the same time the allocation of credit among competing uses are inefficient. These same factors were observed to affect tax collection in the country. For example, about 55.1% of taxes remain uncollected every year, showing the levels of tax collection inefficiencies that exist in the economy. This could be possibly encouraged by corruption, tax evasion, and a fairly narrow tax base. The study concluded that there is a positive but insignificant relationship between tax collected in the country and financial repression. This is demonstrated by the high levels of taxation and the overreliance by the government to generate funds through taxation which accounts for over 70 per cent of income generated internally. Tax collection therefore is a necessary requirement for producing financial repression but not a sufficient factor in itself since other factors (such as the degree of financial development, asymmetric financial information, bureaucratic corruption, per capita GDP, political durability and even banking crisis) seem to equally contribute towards financial repression.

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APPENDICES

Appendix 1: Research Data

Month, Year	Tax Revenue (Kes. millions)	Interest Rate	Exchange Rate	Reserves (Kes, millions)	Credit Allocation (Kes. millions)
Jun, 2012	626445	20.30	83.79	321,224	1,550,521
May, 2012	544007	20.12	83.62	319,865	1,451,224
Apr, 2012	488853	20.22	83.19	316,437	1,409,865
Mar, 2012	426272	20.28	82.9	312,899	1,396,437
Feb, 2012	375669	19.54	83.18	309,003	1,372,899
Jan, 2012	332835	20.04	86.34	305,667	1,359,003
Dec, 2011	289675	18.51	86.66	303,606	1,345,667
Nov, 2011	225147	15.21	93.68	301,015	1,323,606
Oct, 2011	179392	14.79	101.27	298,644	1,301,015
Sep, 2011	135^05	14.32	96.36	296,251	1,298,700
Aug, 2011	78451	14.14	92.79	292,716	1,296,333
Jul, 2011	36753	13.91	89.9	288,022	1,292,213
Jun, 2011	557171	13.88	89.05	283,518	1,288,045
May, 2011	489735	13.92	85.43	280,821	1,283,674
Apr, 2011	438905	13.92	83.89	277,620	1,280,042
Mar, 2011	385369	13.92	84.21	274,910	1,277,005
Feb, 2011	339789	14.03	81.47	270,721	1,274,456
Jan, 2011	302869	13.87	81.03	267,093	1,270,890
Dec, 2010	257979	13.95	80.57	261,799	1,267,677
Nov, 2010	203025	13.85	80.46	260,044	1,261,732
Oct, 2010	162648	13.98	80.71	254,305	1,260,497
Sep, 2010	119470	14.18	80.91	247,363	1,255,605
Aug, 2010	70044	14.29	80.44	242,250	1,247,963
Jul, 2010	33845	14.39	81.43	225,304	1,242,470
Jun, 2010	479568	14.46	81.02	221,173	1,225,224
May, 2010	415380	14.58	78.54	213,183	1,221,158
_Apr, 2010	376403	14.80	77.25	212,841	1,213,943
_Mar, 2010	329879	14.98	76.95	211,065	1,212,873
Feb, 2010	290690	14.98	76.73	202,607	1,211,088
Jan, 2010	259767	14.76	75.79	198,258	1,202,651
Dec, 2009	224451	14.85	75.43	195,543	1,198,778
Nov, 2009	176478	14.78	74.74	191,277	1,195,543
Oct, 2009	141955	14.74	75.24	188,338	1,191,197

Sep, 2009	106704	14.76	75.6	184,641	1,188,300
Aug, 2009	63724	14.79	76.37	181,980	1,184,694
Jul, 2009	33410	15.09	76.75	179,629	1,181,810
Jun, 2009	417354	14.85	77.85	176,236	1,179,269
May, 2009	390213	14.71	77.86	171,694	1,176,258
Apr, 2009	350074	14.87	79.63	176,197	1,171,636
Mar, 2009	305986	14.67	80.26	172,913	1,176,887
Feb, 2009	271011	14.78	79.53	170,609	1,172,967
Jan, 2009	233418	14.87	78.95	161,781	1,170,229
Dec, 2008	199197	14.33	78.04	165,050	1,161,723
Nov, 2008	156692	14.12	78.18	158,890	1,165,064
Oct, 2008	126818	13.66	76.66	158,123	1,158,190
Sep, 2008	94667	13.66	71.41	155,899	1,158,175
Aug, 2008	57410	13.90	67.68	152,321	1,155,019
Jul, 2008	29452	14.06	66.7	144,985	1,152,991
Jun, 2008	363621	14.01	63.78	140,229	1,144,007
May, 2008	328450	13.91	61.9	135,908	1,140,779
Apr, 2008	295750	14.06	62.26	133,665	1,135,935
Mar, 2008	260903	13.84	64.92	133,892	1,133,666
Feb, 2008	232305	13.78	70.62	129,987	1,133,612
Jan, 2008	207445	13.32	68.08	130,306	1,129,347
Dec, 2007	174197	13.39	63.3	128,164	1,131,506
Nov, 2007	146096	13.24	65.49	115,940	1,127,864
Oct, 2007	116814	12.87	66.85	112,578	1,117,640
Sep, 2007	87194	13.04	67.02	110,198	1,113,478
Aug, 2007	55911	13.29	66.95	107,811	1,110,174
Jul, 2007	29179	13.14	67.07	106,018	1,108,711
Jun, 2007	305040	13.38	66.57	103,728	1,106,998
May, 2007	271767	13.33	67.19	102,403	1,103,824
Apr, 2007	243952	13.56	68.58	99,826	1,102,993
Mar, 2007	211973	13.64	69.29	96,793	997,926
Feb, 2007	185723	13.78	69.62	97,040	996,883
Jan, 2007	165473			69.88	95,509	997,600

Source: CBK, 2012

SUMMARY OUTPUT   Force Constant to Zero
FALSE

Statistics

Jtip'eR	0.543
Square	0.295 Goodness of Fit <0.80
justed R-Square	0.248
jndard Error	126352.091
nervations	65

r	df	SS	MS	F	P-value
session	4	4.00341E+11	1.00085E+11	6.2690942	0.000
jidual	60	9.57891E+11	15964850982		
ol	64	1.35823E+12			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95 /
ercept	-276680.4607	649727.6897	-0.425840648	0.672	-1576329.332	102296$
.Rate (Int)	20873.16543	14222.61972	1.467603426	0.147	-7576.309565	49322.64
;ch Rate (Forex)	-4459.774481	4163.88707	-1.071060383	0.288	-12788.78864	3869.239'
serves (Req)	0.464398084	1.000672928	0.464085787	0.644	-1.537245776	2.466041'
edit Allocation						
ld)	0.385168358	0.634694146	0.606856642	0.546	-0.884408948	1.654745i

Source: Research data

y = -276680.461 +20873.165*Int -4459.774*Forex +0.464*Req +0.385*Crd

Appendix 3: Model II - Regression Analysis

SUMMARY OUTPUT		Force Constant to Zero
		FALSE

Regression Statistics	
Multiple **R**	0.539
R Square	0.290
Adjusted **R** Square	0.256
Standard Error	125696.128
Observations	65

Goodness of Fit<0.80

ANOVA

	df	*SS*	*MS*	*F*	*P-value*
Regression	3	3.94461E+11	1.31487E+11	8.32222011	0.000
Residual	61	9.63771E+11	15799516626		
Total	64	1.35823E+12			

0.95

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	73778.6	296180.8207	0.249099857	0.804	-518471.549	666028.749
Int. Rate (Int)	25983.63727	11401.99807	2.278867013	0.026	3183.93324	48783.34131
Exch. Rate (Forex)	-5240.460699	3939.619952	-1.330194476	0.188	-13118.2176	2637.2962
Reserves (Req)	0.967549586	0.557378044	1.735894687	0.088	-0.14699669	2.082095859

Source: Research data

y = 73778.6 +25983.637*Int -5240.461 *Forex +0.968*Req