Tax and governance in Tanzania

An econometric study of how various sources revenue affect public expenditure in local governments

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Preface

This thesis deals with the relationship between taxation and good governance in Tanzania. I had the great fortune to write this thesis while working with Research on Poverty Alleviation (REPOA) in Dar es Salaam, Tanzania. Being based at REPOA in the period 2005-2007 provided me with a unique opportunity to learn about governance and taxation issues, staffed as REPOA is by people with many years of experience in research on development issues in Tanzania.

Numerous people have contributed to this thesis. First I would like to thank Professor Joseph Semboja, Director of REPOA and Mr. Donald Mmari. They welcomed me to REPOA and let me work as a research assistant on several of REPOA’s research projects. During my years at REPOA I met regularly with Brian Cooksey and Geir Sundet. I am very grateful to both of them for providing me with ideas, thoughts and inspiring discussions about governance issues and the political economy of Tanzania.

On several occasions I assisted Wietze Lindeboom of REPOA in the compilation, preliminary and detailed analysis of REPOA’s research projects. I learnt greatly from him during all the stages in analysis, from applications of Excel to modelling and regression analysis in Statistical Analysis System (SAS). In the World Bank Offices in Dar es Salaam I met Parminder Brar who gave me his valuable comments. He also connected me with Mark Glasser at the World Bank in Washington who recommended many reports and articles, in particular on tax reform in Tanzania which where very helpful.

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I would also like to thank my parents, Bodil Maal and Eirik G. Jansen. Both showed a great interest in this thesis. They both read the more general chapters of the thesis and commented upon issues they thought were not sufficiently clear.

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1. Introduction

This thesis is concerned with the relationship between the state of Tanzania and its citizens. More specifically, it will focus on the relationship between the local governments and their citizens. I will examine the system of financing local governments and argue how various sources of revenue may have different impacts on the nature of the relationship between local governments and citizens.

In a country with a large poor majority one would expect the elected government naturally to pursue pro-poor policies. In general policies and plans are aimed at improving the economy and welfare situation of the large poor majority. However, in Tanzania, as in many other developing countries, large gaps may exist between stated policies and plans, on the one hand, and the implementation of these policies and plans on the other.

This thesis will argue that the difficulty of implementing pro-poor policies and plans is closely connected to the balance of powers of the different actors in the domestic arena. It also illustrates the problematic nature of liberal democracy in an unequal society. At the core of this thesis is the question: “Given that needy or greedy politicians and government administrators may derail or override policies that benefit the poor, how can one prevent such good policies from being watered down or not being implemented at all?”

In this thesis I will argue that the main sources of revenue on which local governments are dependent are important in determining the bargaining powers and the nature of the relationship between politicians and government administrators, on the one hand, and the citizens on the other.

1.1 Background and rationale for the thesis

The history of the modern state is the history of its revenue raising capabilities (Levi, 1988). Viable democratic institutions first evolved when state and society entered into contractual arrangements with each other over revenue through taxation. Fiscal theories of governance see revenue sources of the state as sources of power that affect the bargaining situation of the state vis-à-vis its citizens. If the state is reliant on its citizens for revenue through taxation, the state should provide a sufficient exchange, for example, more taxpayer influence over government policies. Conversely, the less the government is dependent on its citizens for revenue through taxation, the less it is likely to respond to their interests.

A major obstacle for accountable and responsive government in many African countries is that states are relatively independent of their citizens for revenue. Tanzania has a very narrow tax base. Taxation only accounts for 12 percent of its GDP. In March 2006 there were 286 large taxpayers, mainly medium and large formal sector businesses that paid over 70% of domestic taxes. Most state revenue comes from foreign aid and the natural resource sector. Being almost independent of ordinary citizen taxpayers for revenue leads to a strong state, but also to much waste, mismanagement and corruption from the citizens’ point of

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1 The revenue base excludes many professionals, such as lawyers, doctors, private consultants and poor informal sector enterprises.
The political processes can thus happen with little bargaining and compromises with the poor majorities and their policy preferences. Such ‘negative reciprocity’ may also lead to tax evasion and avoidance and an adversarial relationship between citizens and governments.

If the poor majorities ruled over some strategic resources, they would enjoy greater counter veiling power vis-à-vis the state. Such counter veiling power of the citizens would enable them to bargain more effectively with the representatives of the state. The outcome of such a political process would make the policies of the state more citizen friendly. Changing the bargaining powers of the state vis-à-vis its citizens is about changing the nature of political processes and the resulting political equilibrium.

This thesis will argue that fiscal theories of governance can explain some of the reasons for state incapacity in Africa and why politicians are not more responsive and accountable to groups that appear to be unnecessary to court politically. I will argue that fiscal theories of governance also highlight why internal control systems and ‘technocratic’ approaches to improving democratic institutions are not sufficient to create accountable and responsible government.

The thesis will discuss the extent to which fiscal theories of governance as a proposition are relevant for analyzing and understanding the relationship between the state and its citizens in local governments of Tanzania. It will analyze financial data of 115 local governments from 2002-2006 and examine whether different sources of revenue influence the patterns of expenditures of local governments.

1.2 Outline of Thesis

This thesis is divided into six chapters. Chapter 2 will focus on theories and approaches to improve government accountability vis-à-vis citizens. Consequently, I shall discuss why the results of technocratic approaches have been mixed and why the intended policies are not implemented. This discussion is used as a rationale for introducing fiscal theories of governance that explain how politicians can be given incentives to pursue the policy preferences of ordinary citizen taxpayers.

Chapter 3 will use Tanzania as a case and discuss the main sources of revenue that are available for the country and the reasons for revenue collection being the smallest component of local government finances.

Chapter 4 will discuss the observable characteristics of fiscal theories of governance and what the expected observable governance outcomes are in the financial data of local governments of Tanzania.

Chapter 5 represents the second half of this thesis and will discuss the econometric approach I have used in this study. Since I am only interested in how sources of revenue affect expenditure from 2002-2006, I have used a two-way fixed effects panel data model to remove any omitted variable bias. I will examine how marginal changes in various sources of revenue (taxes, central government transfers and foreign aid) influence expected public expenditures (i.e., administration costs, public services, revenue deficits). I shall also

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2 According to the Transparency International’s annual Corruption Perception Index (CPI) Tanzania moved from 1.9 to 2.9 on a scale from 0 to 10, from 1998 to 2006. The worst country, Angola, received 2.1 and the best, Finland, achieved 9.6 in 2006. A score beneath 5.5 is regarded as weak.
examine how marginal changes in various sources of revenue influence the gap between budgeted tax collection and actual collection (i.e., whether foreign aid may complement or substitute for tax collection), and gaps between budgeted expenditure and actual expenditure. I look at sub-samples of urban and rural local governments, and advantaged and disadvantaged local governments to check which competing types of fiscal theories of governance (coercive or contractual taxation) have more clout in certain areas. Before I present my main findings I will present the data used and some descriptive statistics. Then I will present the local government data and discuss the main findings in light of fiscal theories of governance. Finally I will discuss the robustness of the econometric model. I will compare my results with other model specifications, and use F-tests as well as robust Wald tests to check for unobservable time and individual heterogeneity.

Chapter 6 will give some concluding remarks.
2. Understanding political incentives

In order to prevent government elites from appropriating revenues for themselves, citizens must have power to sanction them. To provide the right framework for understanding political incentives I will firstly use a simple agency model of public finances that shows how politicians are disciplined by elections. Based on the agency model I will discuss the effectiveness of political competition and the role of information. In order to address the issue of political incentives of the governing elites I will look at the agency problem as a redistribution problem by relaxing the assumption that public services cannot be targeted to specific groups. Subsequently, I will discuss approaches to improve political accountability that are intended to complement and strengthen elections as a sanctioning device and explain why these mechanisms have been ineffective. Finally, I will explain the role of political processes and state capacity in forming policy outcomes. Central in this discussion is the bargaining power of states vis-à-vis their citizens.

2.1 A simple agency model of public finances

Political economics literature focuses on how multi-candidate elections can discipline politicians. The public finance model assumes that government services are financed by one revenue source, taxes. All citizens need to finance a proportionate share of public services and services cannot be targeted to specific groups.

The text box below explains briefly how democracies may ensure efficient policies through electoral competition. Political candidates compete away their opportunities for rents and redistribution occurs efficiently and the voters preferences will be listened to. This view has been advocated by Chicago-school economists. When policies are not verifiable or enforceable redistribution is no longer necessarily efficient. There is a conflict of interest between voters and political representatives and the government which is seen as a malevolent revenue-maximizing Leviathan. This view is often associated with the Virginia school.

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3 Work on accountability in a democratic context stems from papers by Barro (1973), Ferejohn (1986) and Persson, Tabellini and Roland (1997). They examined the conditions under which voters could use punishment strategies to discipline politicians who fail to satisfy their commitments or engage in corruption.
Textbox 2.1: A simple model of public finances

Persson and Tabellini (2003) looks at the agency problem as a public finance problem with elections in which politicians receive revenue through taxation of income and can choose between the level of public goods and rents. They assume that the cost of transforming taxes into public goods is known to everyone ($\theta$ is known). Expenditure on public goods, $g$, cannot be targeted to specific groups/individuals and rents, $r$, only benefit the politicians. Furthermore all publicly provided goods are financed from a common pool of tax revenues with equal contributions from all individuals.

The government budget constraint:

$$\tau y = \theta g + r$$

The budget constraint highlights the crucial role of information, $\theta$ is the relative cost of transforming private output into public goods. As long as the promises of politicians are enforceable and verifiable to citizens, competition between candidates implies that favors cannot be given to special interests and redistribution occurs efficiently. Politicians who try to keep rents for themselves will not be able to remain in power. A competing politician will always offer a policy that a majority of voters prefers, denying power to the inefficient politicians. Political competition disciplines politicians and leads to efficient outcomes when promises are enforceable and verifiable.

$$g_A(\theta) = g_B(\theta) = g^*(\theta), \ r_A(\theta) = r_B(\theta) = 0$$

When one assumes that the cost of transforming private output into public goods, $\theta$, is unknown and the cost can randomly take two states (expensive or cheap), the role of information becomes crucial. When policies are enforceable but not verifiable the politicians will deliver the efficient redistribution outcome in the expensive state. When the public goods take the cheap state, the candidate can claim the contrary and pocket the difference in the form of rents. When the promises of politicians are neither enforceable nor verifiable by citizens, the outcome of redistribution is disastrous for voters. The elected candidate follows a “Leviathan policy” (see footnote 5 page 6) in which voters are fully taxed and no public goods are delivered.

$$g(\theta) = 0, \ r(\theta) = y, \ \tau(\theta) = 1$$

Democratic pressure for re-election is not sufficient to discipline politicians when outcomes are not enforceable or verifiable. Though the logic of political competition is powerful, empirical evidence does not seem entirely consistent with it. In principle, elections provide citizens with both answerability (the right to assess a candidate’s record) and enforceability (vote the candidate in or out). In practice, democracies vary greatly on both dimensions, as do most attempts to exercise accountability. Robinson (2003) argues that for political competition to be effective in disciplining politicians, citizens have to coordinate their voting strategies and must be able to solve the collective action problem. Groups who cannot do this will not be able to effectively sanction politicians. The actors who control the agendas of political parties are also likely to be important. Sanctions are only going to be effective in situations where there are real alternatives for voters. Dixit (2001) argues that in lesser-developed countries information asymmetries amongst stakeholders are greater whereas political authorities with powers of making, enforcing laws and extracting taxes are weaker. Agency problems are often more severe in lesser-developed countries.

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4 In 1974 only 39 countries in Africa—one in four—were electoral democracies. By the end of 2002, this had grown dramatically to 121 governments—three in five. Over the last century, the percentage of people living in democracies with competitive multiparty elections and universal suffrage has increased dramatically.
2.2 Redistribution in the agency problem

The simple public finance model would suggest that when outcomes are neither enforceable nor verifiable, the politicians would follow the *Leviathan policy* of Hobbes. However, government policy should not only be to maintain social order but also to be an equitable, just, and democratic government that elicits well-earned support and loyalty from its citizens. Government actors are important players in their own right: they affect the rules of the game; they distribute or redistribute political and economic resources; they can capture an organized society’s wealth or enhance it (Levi, 2006).

In order to understand political incentives it is useful to look at the agency problem as a redistribution problem, about whether to cater to special or general interests of the people. The formal political economy literature finds that redistribution in democracies is targeted at groups that are relatively numerous, are able to solve the collective action problem when others are not, manage to form political parties while others do not, are un-ideological swing voters, are relatively well informed, who turn out to vote in high numbers, who are relatively poor and who are in the same social network as politicians (see Robinson, 2003).

A main prediction of the workhorse of political economics, the median voter model, is that there should be more redistribution in societies with high inequality. Lind (2005) has conducted a thorough review of the empirical literature on redistribution and argues that support for this hypothesis is at best mixed. Although some studies do find support for the hypothesis, others find the opposite relationship between inequality and redistribution.

The World Development Report (2004) divides redistribution into ‘pro-poor’ or ‘clientelist’ environments. This distinction reflects the incentives facing the governing elites, and whether redistribution is designed to be universal and available to the average citizen or vulnerable to targeting to ‘clients’ by political patrons, and, if formally targeted to the poor, whether they are in practice captured by elites. Clientelist political environments are those in which governing elites have strong incentives to shift public spending to cater to special interests, to core supporters, or to ‘swing’ voters. In these environments the poor do not benefit from redistribution because they do not have the political attributes that are adequate to extract promises, or because they are not able effectively to impose accountability on politicians. They lose out because others are more desirable to court politically.

2.3 Efforts to complement electoral processes as sanctions

In the academic literature of African politics there is a huge consensus that African politics can be described as clientelist and subject to personal rule (Robinson, 2003).

In clientelist settings voters are often unable to create incentives that would lead to politicians giving a high priority to the provision of better public services; incentives often lead elected representatives to respond to patronage or to the more powerful interests in society.

In order to enable citizens to hold politicians and policymakers more directly accountable for government policies, various efforts to strengthen client power and traditional voice

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5 For Hobbes, the key to an effective government is first, foremost, and solely centralized coercive power in the hands of the monarch (the great Leviathan). A government provides security against violence and the population is happy to gain this security in exchange for their compliance with an authoritarian government.
mechanisms have been tried. More recently new diagnostic tools such as public expenditure tracking studies have been used to strengthen civil society’s toolbox for holding the government accountable. Such activities do not replace the electoral process, rather they complement it to strengthen the demand side of accountability.

The various approaches that are employed to improve governance and accountability can be divided into internal and external efforts. External accountability mechanisms focus on improving the demand side of public services by creating a well-informed and demanding user-group of services that is able to hold public officials accountable for their actions. Internal efforts are accountability measures that aim to strengthen internal control through checks and balances within the state machinery, and to efforts to improve government efficiency in the provision of public services have been concerned with institutional strengthening, strategic planning, training and increased budgetary allocations. Internal and external efforts to improve governance and accountability all have their weaknesses and later I will argue why.

2.3.1 Improving government efficiency

In heterogeneous societies clientelism is sometimes seen as a necessary strategy to stay in power, and the greater benefits of being in power, the more endemic clientelism will be. In states which contain several groups with conflicting interests and often with sufficient power, economic or political, to influence the policy-making agencies, clientelism may be seen as a divide and rule policy. Clientelism is influenced by the desire to control collective action and is attractive precisely because it destroys the ability of groups to engage in collective action by selectively undermining their solidarity. (Robinson 2003).

Political mechanisms might adopt inefficient forms of redistribution in order to be politically attractive. In the recent literature, inefficiencies in the form of redistribution may be motivated by politicians to conceal that they are really redistributing, by interest groups benefiting from redistribution to maintain their political power, by politicians hoping to reduce the total amount of redistribution that they have to undertake, by politicians because it helps them to create incentives for voters to support them and by interest groups because it can help them solve the collective action problem (Robinson, 2003).

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6 Traditional voice mechanisms are strengthening elections through informed voting, a free press, user groups and public information campaigners. Measures to strengthen client power are through nongovernmental and civil society organizations that help amplify the voices of the poor, coordinate coalitions to overcome their collective action problems and demand greater accountability for the provision of public services.

7 The most famous PETS were conducted in Uganda by Reinikka and Svensson, 2004. Less known is that three PETS have been conducted in Tanzania.

8 This internal-external division is used to highlight the source of control of the approach that holds the administrative body to account. The source of control is determined by its independence from the administration in monitoring and scrutinizing the administrative body.

9 Empirical researchers have also documented many specific instances where ethnic diversity produces subpar collective action outcomes. Ethno-linguistic fractionalization is linked to community pressure and social ties that help sustain good collective outcomes. With a high level of fractionalization it becomes difficult to sustain cooperation across ethnic groups in areas where members of different groups tend not to have frequent social interactions or personal affinity.

10 The collective action problems characterize situations in which a group would benefit from cooperation, but the lack of individual incentives to engage in the actions necessary to achieve this cooperation prevents the goal from being attained.
There is a broad consensus among academics and policymakers that good government matters for economic development. Most international donors agree that aid flows have stronger impacts on development in countries with good institutional quality.

Among policymakers, improved government efficiency was the overriding aim of public sector reforms in African countries and was seen as critical for equitable development in the poorest countries in the 1990s. Public sector reform was driven by the performance-based market-oriented concepts of New Public Management. The future public sector was a smaller one, intensively focused on efficiency and continuous improvement. The public sector was to devolve more power to local governments, promote privatization and create a range of specialized semi-autonomous agencies. The central government should focus on ‘core’ functions such as managing the macro economy, providing basic social services, infrastructure and safeguarding law and order. More recently, in order to provide incentives for improved governance effectiveness, development partners have linked funding of governments to performance indicators and revenue collection targets (Therkildsen, 2001).

2.3.2 Internal accountability mechanisms

Internal accountability mechanisms are rules and regulations in government that work as checks and balances. When a public watchdog or audit commission detects corrupt behavior, an independent court should ensure that adequate action is taken fairly and reasonably. Legal processes and systems to control public sector mismanagement rely on the existence of an effective legal-judicial system that can investigate and enforce existing rules, and, when appropriate impose sanctions in accordance with the law in order to provide a deterrent effect.

When formulating anti-corruption strategies one cannot rely solely on the official legal-judicial systems and conventional enforcement mechanisms when these functions are weak. The reason is that powerful economic interests of the elite and close connections between the judiciary and the executive branch of politicians are major obstacles to transparency and impartiality of the judiciary.

From a cynical perspective, administrative initiatives can legitimize the government’s fight against corruption and are acceptable to vested interests because they ‘lack teeth’ and can be captured. Instead of wanting competent anti-corruption agencies and clean government, entrenched elites will seek to maintain control over internal accountability agencies in order to prevent their use against themselves.

2.3.3 External accountability mechanisms

Information that is specific and directly related to voters’ concerns and framed in a way that ensures political interest can make political commitments more credible and improve government effectiveness.

As in many other developing countries, political liberalization has led to an explosion of civil society organizations of both service provision and watchdog varieties in Tanzania.

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[11] Government effectiveness measures the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government’s commitment to such policies.
These are overwhelmingly donor-funded. Civil society organizations can work closely with communities and may contribute to effective oversight. However, they often find that they have limited room for manoeuvre without the support from local or central government institutions on issues concerning transparency in the budget process and accountability in service delivery in Tanzania (Sundet, 2004). Whilst some senior officials are receptive, others reject the legitimacy of civil society as an independent voice on issues such as governance and accountability with the justification that they are foreign-funded and therefore probably follow foreign agendas, for instance on issues of democracy. They also argue that NGOs are self-appointed whereas the government is elected. As in many other developing countries the media are not considered to be completely free in Tanzania.

Although the media report and comment on corruption there is a lack of robust, in-depth investigative journalism dealing with issues of corruption. Journalists are frequently criticized for lacking professionalism, and for practicing various forms of ‘cash-book’ journalism, despite many donor-funded training workshops. A number of laws and regulations make it difficult for journalists to access and publish ‘sensitive’ information (Cooksey, 2005).

2.3.4 Putting the cart before the horse

African governments have been making significant reforms in line with what Mkandawire (2005) calls the ‘technocratic’ transparency-accountability governance agenda of the foreign partners. There has been much emphasis on formal political institutions but it has to be remembered that the political reality in Africa is very un-institutionalized.12 Thus the applicability of any of these institutional approaches must be in severe doubt (Robinson, 2003). Regarding voice mechanisms and improving client power Robinson (2003) argues that ‘[...] on the margin, giving the poor more information may help them make politicians accountable but it is probably hard to sustain without formal political representation, parties, and changes in political institutions [...]’.

According to the World Development Report (2004) voice mechanisms may lead to answerability but they do not necessarily lead to enforceability.13 When services fail everyone, the voice of all citizens (or even that of the non-poor alone) can put pressure on politicians to improve services for all citizens, including the poor. But when services fail primarily poor people, voice mechanisms operate in much more difficult political and social terrain. Elites can be indifferent about the plight of poor people. The political environment can swamp even well-organized voice. Protest imposes large costs on the poor when their interests clash with those of the elite or those in authority. It then matters whether society is homogeneous or heterogeneous and whether there is a strong sense of inclusion, trusteeship, and intrinsic motivation in the social and political leadership of the country. To expect poor people to carry the primary burden of exerting influence would be unfair—and unrealistic’ (World Development Report 2004).

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12 Van de Walle (2001) examines the failure of African countries to perform well economically since independence and why policy reform since 1979 has been so unsuccessful in changing anything. His analysis suggests that good economic policies and performance are consistent with clientelism and that policy reform does not take place because it would undermine the ability of rulers to use patronage to maintain their power. (Robinson, 2003)
Any real effort of change towards a stronger media and civil society cannot help but have powerful political implications, with which most such institutions have been unfit to deal. Complementing elections by improving voice mechanisms and internal control are not sufficient in order to change political incentives and the creation of viable democratic institutions. Aligning the political incentives with that of the citizens must come before any ‘top-down’ approach to improve institutional development. Focusing on such technocratic approaches to improve governance and accountability are to put the cart before the horse. Margaret Levi (2006) writes that this is a fruitful debate and argues that the causal arrow of disciplining governing elites is more likely to go from government, to civic engagement than vice versa.

Crucial in political processes is the ability to determine the needs and to frame and nurture bargaining and compromise among competing interests. This is also an essential element of state capacity. Changing the bargaining powers of the state vis-à-vis its citizens is about changing the nature of political processes and the resulting political equilibrium.

2.4 Rethinking governance - fiscal theories of governance

In this section I will introduce fiscal theories of governance and explain how taxation as opposed to other sources of revenue such as foreign aid and natural resources, potentially may have positive implications for the viability of democratic institutions and consequently on government effectiveness. In the last subsections I will point out some underlying reasons for why the reciprocal element in taxation is largely absent in many developing countries. Finally, I will discuss some quantitative and qualitative research on the links between revenue sources and good governance.

The Austrian economist Joseph Schumpeter conducted a sociological analysis of taxation and public finances in 1918. In his work he argued that the great historical transformation in modern western European history was neither the emergence of capitalism (Marx) nor the rise of modern rational bureaucracy (Weber), but the transition from the domain state, in which government activities were funded from surpluses derived from the ruler’s own properties, to the tax state, that was funded through regularized tax levies on the private sector and private incomes.

Extensions of Schumpeterian propositions have been developed and explored in recent literature relating to developing countries: the assumption or expectation that there is a causal connection between the dependence of governments on broadly levied taxes and the existence of the kinds of binding constraints on governments and institutionalized political representation that constitute the foundations of liberal democracy. Very crudely, relative to

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14 Most of these studies are taken from European state building. Levi (1988), for example, uses evidence from ancient Rome, England and France in the Middle Ages, 18th Century Britain, and modern Australia to demonstrate that since tax payments are to a certain extent voluntary, governments need to create compliance (or cede policy making power) in order to generate revenue. Other scholars have used fiscal theories of governance to develop compelling arguments to account for the rise of democratic political institutions in Europe (e.g., Bates 2001, Tilly 1990).

15 Schumpeter’s “The Crisis of the Tax State” is the inspiration and bible of later fiscal sociology:
other types of states, tax states will tend toward accountable, representative government.
This is what Moore (1998) calls the fiscal (social) contract proposition.

2.4.1 Getting the political incentives right

Economic policy as practiced in almost all countries is an equilibrium outcome of a political process. Political processes are influenced by many costs of negotiating and implementing agreements, most notably costs of coping with information asymmetries and costs of making commitments credible. Political processes are also constrained by historically and socially predetermined institutions and organizations (Robinson, 2003).

In developing countries the dynamics of the public sector reform process is complicated and large gaps can exist between outlined policies and implementation. Unlike in Western democratic countries where reforms are implemented after consensus, many important policy decisions are taken during the implementation phase. The influence development partners may have on the design; scope and sequencing of reforms can be substantial but the political support for these reforms is often fragile and the donor influence in implementing reform is limited. In the implementation process Therkildsen (2001) mentions that there is a resistance to changes in power relations between government and organizations, between politicians and bureaucrats and between the state and civil society. Haggard and Kauffmann (1992) mention three major groups of actors in the reform process: interest groups, state elites, and donors. Conflicts of interest are found within and between them (see Therkildsen 2001). Hyden (2005) mentions that personal deals rather than formal rules are what are important during the implementation process. Therkildsen (2001) calls it a political contestation where special interests and bureaucratic power often dominate; political and personal loyalty is rewarded more than merit.

Well-functioning states are necessary for viable democratic institutions and political processes. A major reason for large gaps between outlined policies and implementation are the skewed bargaining powers of society vis-à-vis the governing elites. Revenue is important in political processes because it represents a strategic resource. First, if non-state actors can limit and control the states access to revenue, they enjoy countervailing power in relation to the state. Second, if state elites are dependent on general taxation, because they lack easier revenue sources such as aid and natural resources, they generally have to put considerable organizational and political effort into obtaining the revenue, facing strong incentives to bargain and negotiate, directly or indirectly, with at least some taxpayers, rather than simply to extract revenue forcibly (Moore, 2007).16

As mentioned in the introduction, in order to understand the importance of revenue in political processes one must understand how modern states evolved. Levi (1988) argues that the evolution of the modern state is the history of its revenue raising capabilities. Viable democratic institutions first evolved when state and society entered into contractual arrangements with each other over revenue through taxation. Being dependent on broadly levied taxes changed the incentives of politicians, the whole qualitative nature of the political process and the resulting political equilibrium. This new political equilibrium aligned the incentives of politicians with those of the general public and induced them to give the poor more political power.
2.4.2 The history of the fiscal state

While all governments extract resources, some are ‘kleptocrats’, some are Robin Hoods, and some, albeit too few, are partners in the production of prosperity and equity. Government, and especially effective government, does not just happen, even when there are well-designed constitutions and particularly when there are not. Most countries experience stops and starts in their efforts to build states and better functioning governments (Levi, 2006).

The link between taxation, democracy and accountability became an essential element in European state building in the 16th to 18th century. The threat of interstate war and other circumstances made government and citizens realize that they had a mutual incentive to engage in contractual arrangements with each other over purchasing power. Traditionally government needed revenue for military expenditure whilst society demanded both security against threats and low, predictable taxes in exchange for public services. Coercive tax collection was unpopular amongst people and lead to high collection costs and unreliable revenues. Relying on the rulers’ estates meant that the state could not expand income quickly. Rulers needed a reliable, stable source of income for military expenditure. Since taxes were jointly agreed, taxpayers delivered willingly more revenue and collection costs were lowered and became more predictable. Taxpayers felt more secure in making economic investments and rulers could undertake long-term planning more effectively. The “taxation state”, relying on broad taxation had a more reliable source of income for military expenditure, and was militarily superior to other states relying on other sources of revenue. The “taxation state” developed into the “fiscal state” which had greater capacity to raise the financial resources to cope with emergencies such as war by borrowing quickly and then repaying cheaply with future tax revenues. In exchange for greater economic capacity the fiscal state, relying on future tax revenues, had to be more accountable and responsive to its citizens demands.

Herbst (2002) and Bates (2001) argue that the lack of development of African state institutions helps explain many aspects of modern Africa. Since states never had to fight to survive they never had to build effective fiscal institutions. Therefore they have weak tax bases and instead have to engage in highly distortionary methods of raising revenue (often conducted with the use of coercion) or redistributing income. Since states never had to fight to survive, rulers never had to consolidate their rule and crush domestic opposition. Since states never had to fight to survive, they never had to make political concessions to their citizens. This is a reason for a lack of functioning domestic political institutions such as parliaments and the completely unconsolidated nature of democracy in Africa. Moreover, the lack of these institutions can help explain the extent of state corruption in Africa since these institutions provide key checks on abuses like this. Finally, this set of institutions has been further encouraged in the last fifty years by foreign aid and development assistance. These transfers give states valuable resources that allow them to stay in power without having to develop indigenous state institutions to raise taxes. Thus the incapacity of African states has been reinforced not just by Cold-War politics but also by less cynical attempts to help (Robinson, 2003).

2.4.3 ‘Earned’ revenue

The mixture of sources of revenue at the state’s disposal is important in determining its bargaining power over society (Hoffman and Gibson, 2005). Moore (2007) divides revenue
into ‘earned’ and ‘unearned’ revenue. When the government puts effort into negotiating and bargaining with citizens in exchange for revenue we say that revenue is ‘earned’. The more the government ‘earns’ its revenue through broadly levied taxes, the more responsive and accountable it will be to its citizens. The government has to put organizational effort into claiming, locating and collecting broadly levied taxes. In addition to cultivating societal compliance by giving a sufficient exchange for tax payments, government should focus on tapping into good revenue sources. Fiscal theories of governance argue two central points: First, the shape of political institutions reflects a government’s need for revenue; secondly, taxpayers benefit from government policies roughly in proportion with the share of government revenue they finance.

When tax compliance is high taxes can be politically constructive. According to Moore (2007) connections between tax dependence and governance are now emerging from comparisons between sub-national governments within the same countries. Gervasoni (2006) looks at the political history of 21 of Argentina’s Provinces over the period 1983 to 2003. He found that the Provinces most dependent on broad taxation of their citizens had historically been more democratic (see Moore, 2007).

Table 2.1 Direct governance outcomes of earned revenue

<table>
<thead>
<tr>
<th>Immediate effects</th>
<th>Intermediate effects</th>
<th>Direct governance outcomes</th>
</tr>
</thead>
</table>
| A. The state becomes focused on obtaining revenue by taxing citizens | A. (i) The state is motivated to promote citizen prosperity  
A. (ii) The state is motivated to develop bureaucratic apparatuses and information sources to collect taxes effectively. | A. (i) More responsiveness  
A. (ii) More bureaucratic capability |
| B. The experience of being taxed engages citizens politically | B. (i) (Some) taxpayers mobilise to resist tax demands and/or monitor the mode of taxation and the way the state uses tax revenues | More accountability |
| C. As a result of A and B, states begin to bargain over revenues by exchanging willing compliance by taxpayers for some institutionalized influence over the level and the form of taxation and the uses of revenue (i.e. public policy).* | C. (i) Taxes are more acceptable and predictable, and the taxation process more efficient.  
C. (ii) Better public policy results from debate and negotiation.  
C. (iii) Wider and more professional scrutiny of how public money is spent  
C. (iv) The legislature is strengthened relative to the executive (assuming one exists) | C. (i) More responsiveness, political and bureaucratic capability  
C. (ii) More responsiveness and political capability  
C. (iii) More accountability  
C. (iv) More accountability |

Source: (Moore, 2007)

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17 Adam Smith had opinions on what constitutes a good tax. “The tax which each individual is bound to pay ought to be certain, and not arbitrary. The time of payment, the manner of payment, the quantity to be paid, ought all to be clear and plain to the contributor, and to every other person... Every tax ought to be levied at the time, or in the manner, in which it is most likely to be convenient for the contributor to pay it... Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the state.”
2.4.4 ‘Unearned’ revenues

Foreign aid and natural resources revenue are considered to be ‘unearned’ since the government, relatively speaking, does not have to put much as much effort into organizing the collection of them or negotiating and bargaining with their citizens over them. In developing countries where democratic institutions are weak the dependence on ‘unearned’ revenue makes the state relatively independent of their people for tax and consequently also for their demands.

2.4.4.1 Natural resources

There are several case studies and cross-country surveys that show that oil and mineral rich countries tend to be less democratic than states which depend on taxation of citizens for their fiscal base (Fjeldstad and Therkildsen, 2003). The proportion of direct and domestic indirect taxes in state revenues is a fair predictor of democracy and an even better predictor of liberalism. States have fewer incentives to promote broad economic development, may use oil revenues to buy off opposition, and to fund repressive internal security. They also tend to attract external military and political support. States have opaque revenues with low oversight from legislatures. They have few incentives to establish effective bureaucracies to raise and manage taxes. Furthermore, because there is no political bargaining over sources and use of public revenues, taxpayers have fewer incentives to engage in the local political process (Moore, 2007). These factors lead to what is sometimes called the ‘resource curse’ or the ‘Zairian’ disease (Knack 2001).

Empirical evidence on the connection between natural resource exports and corruption are attributable to Treisman (2000). His findings suggest some evidence that countries where natural resources are a high fraction of income tend to be more corrupt, other things equal. Other’s present similar evidence (see Robinson, 2003). Persson and Tabellini (2000) also show that the size of government is larger in such economies.

There are three reasons why extraction or export of natural resource products has increasingly become a major source of funding for a large number of states. The rapid growth in dependence of modern industrial economies on oil and now gas for energy, declining international transportation costs and continuing or growing international inequality in productive capacity and incomes (Moore, 2007).

2.4.4.2 Foreign aid

Some claim that aid has similar ‘oil’ effects on democratic governance in developing countries. Cross-country statistical analysis of high levels of aid dependence and governance is more contested and mixed (Moore, 2007). However, aid is intrinsically political and the political equilibrium in client countries is almost certainly influenced by it. Aid may shift the political equilibrium but not necessarily in favor of poor people. Aid may act as a substitute for taxes keeping governments from taxing, whilst high aid-dependence tends to degrade the quality of governance institutions over time (see Moore 2007). Van de Walle (2001) concludes that the role of International Financial Institutions such as the World Bank has been to entrench clientelism since they provide the resources that allow it to persist as a viable political strategy even in the midst of economic collapse (Robinson 2003).

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18 Collecting taxes from the natural resource sector is not effortless, but revenue collected from natural resources is often pocketed as rents. Thus no negotiation or bargaining with citizens is needed.
Economic reforms that have been implemented in many African states have lead to smaller public sectors and lower taxes weakening the ties between state and society. The weakened states have become increasingly reliant on foreign aid. Increasing aid-dependence may not only short circuit the process of bargaining between the state and citizenry as seen in ‘fiscal states’ but also strengthen the executive at the expense of parliament, civil society and the private sector. In the 1980s and 1990s it also lead to a dramatic shift in power towards the donors. The balance of power between foreign donors and states has had long-lasting effects and has been difficult to reverse, despite calls for ‘partnership’ and ‘local ownership’ (Mkandawire, 2005). Furthermore, not linking expenditure to revenue collection is making many developing countries more aid dependent which could lead to a further weakening of the viability of local democratic institutions.

More recently a stronger focus on efficient allocations in donor-countries has lead to more conditions being attached to aid. The more precise the donor targets and goals are, the more likely it is that aid will constrain the local democratic institutions of the recipient governments. In this sense aid may create ‘authoritarian enclaves’ that become insulated and autonomous of local representative institutions that may override or derail longer-term local needs (Mkandawire, 2005). Because of the corruption, waste and mismanagement in the public sectors of developing countries, the donor approach has consisted of going round the roadblock of domestic politics and attempt to use non-governmental organizations or create parallel institutions to deliver services directly to the poor. However, creating parallel institutions has many problems and may further undermine indigenous state capacity (Robinson, 2003).
3. Tanzania’s revenue sources

This chapter will focus on Tanzania’s revenue sources. Since local governments are so heavily dependent on intergovernmental transfers from central government a short description of Tanzania’s main sources of revenue is given. I will discuss the revenue sources in light of fiscal theories of governance. The three main sources of local government revenue that will be commented upon are later used as variables in explaining public expenditure in my econometric model.

The majority of people in Tanzania are poor and the median voter is rural and lives slightly above the poverty threshold. In 2003 the median level of monthly consumption expenditure was at TShs 7,523 (around $6) per person and the average (mean) level of per capita consumption expenditure was at TShs 10,120 (around $8) per person (Boex, 2003). 83 percent of Tanzania’s population resides in rural local government districts, almost two-thirds of population are engaged in agriculture as primary activity, while 36 percent of the population falls below the basic-needs poverty line. If the median voter theorem were correct, the median voter would set policy and, because of substantial income disparities, would be in favor of pro-poor redistributive policies. However, what characterizes redistribution in Tanzania is the great extent of clientelist policies (also known as neo-patrimonialism). Using the perspectives from fiscal theories of governance I will argue why pro-poor policies are watered down and sometimes not implemented at all.

3.1 Tanzania’s revenue sources

In Tanzania tax revenue is approximately 12 percentage of GDP. The agricultural sector accounts for 48 percent of GDP (Cartier and Ruitenbeek, 2007). The rest of official GDP comes mainly from the natural resource sector and foreign aid. 19

Like many other developing countries, Tanzania has a large and mostly untaxed informal sector. The informal economy is estimated to be at 60 to 70% of official GDP (see Fischer 2003). In another survey from 2000 out of 110 countries, Tanzania (along with Nigeria and Zimbabwe) had amongst the largest informal economies documented; the scale of Tanzania’s informal economy stood at 58.3 percent of formal Gross National Income (GNI) at the time (Cartier and Ruitenbeek, 2007). 20

3.1.1 Natural resources

Officially the natural resource sector accounts for approximately 15% of GDP. 21 The natural resource sector could have contributed to significantly more of the GDP had a large portion of it not been in the informal sector. 22 The amount of lost revenue is not

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19 See the appendix A for facts about the economy of Tanzania and each sector’s contributions to total GDP, 1999-2005.
20 In recent years, Tanzania’s annual real economic growth rate has been between 6 and 7 percent with GNI equivalent to about US$340 per person. The informal economy could potentially have contributed an additional US$100 per person (Cartier and Ruitenbeek, 2007).
21 Forestry accounts for 2-3 percent of official GDP (unaccounted-for services and non-industrial forestry reach 10 to 15 percent of GDP.), tourism almost 5 percent, mining 3.5 percent, fisheries between 2-4 percent and wildlife 1 percent.
known but is understood from various studies or observations (TRAFFIC, Tanzanite, etc.) to be very large. The natural resource sector is riddled with unclear property rights, incorrect pricing of resources and little access to information.

Unclear property rights leads to a blurred state-society relationship and government’s claims on revenue in the natural resource sector are often arbitrary. The tax regime works poorly and concessions are often made in the form of special deals with large-scale contractors.23 Those with few connections within the political and business elites suffer the most. The natural resource sector is a fertile ground for rent seeking. Rent seeking can arise from the lack of a responsible institution, or from poor record keeping and blatant illegal activities. This leads to a loss of revenue for government coffers but to the enrichment of some few government officials. There are numerous cases of lost government revenue from natural resources, for instance, in the forestry sector.24

3.1.2 Foreign aid

Since the 1960s Tanzania has received a substantial amount of development assistance. Annual disbursements of aid averaged US$ 320 million between 1969 and 1975, increased to almost US$800 million between 1975 and 1985, and finally reached an average of more than US $1 billion between 1986 and 2000 (IMF, 2001, constant prices of 1995). The share of European aid flows to Tanzania is high. Between 1973 and 2003 it stood at an average of more than 80% of bilateral aid and at nearly two thirds of bilateral plus multilateral aid (Fischer, 2005).

After the failure of Nyerere’s African Socialism Tanzania undertook an economic recovery program advocated by the Bretton Woods institutions in the mid 1980s. The economy was liberalized, former state owned businesses were privatized and the business responsibilities of the state were reduced to few core activities. Being a peaceful and stable country in the midst of a continent of violence and instability the World Bank and foreign partners have spent a substantial amount of development assistance, despite Tanzania’s weak governance. The reduction of the state’s direct involvement in the economy coupled with the donors’ willingness to increase their level of assistance within the parameters of the new policy regime increased aid-dependency and reduced the state’s dependence upon citizens for its fiscal base. Since 1986 Tanzania has financed approximately 50% of its total budget from foreign aid. Despite the corruption and mismanagement that has taken place in government, the donor-presence in Tanzania is still very strong. In 2007 around 20 foreign partners funded approximately 42% of the total budget of the Tanzanian government.

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22 ‘Natural resources in Tanzania constitute a significant – albeit fragile – wealth asset. Since 1996, mining, fisheries, forestry, wildlife and tourism have been the most dynamic sectors in the economy...Forestry, wildlife, and offshore fisheries resources, though declining, are still relatively abundant and have largely untapped growth potential’. While tourism development is a success story in macroeconomic terms, significant potential still exists to generate local development spin-offs. Most known mineral deposits are already being tapped, but new mineral stocks are being discovered. The fisheries sector is still growing, but there are signs of decline in the catch per unit effort in Lake Victoria and in the catch of fish and prawn in the coastal zones; this points toward a deceleration of growth in the medium and long terms. Tanzania’s Hidden Economy (March 2007)

23 The government has been accused of favoritism in the mining industry for instance.

24 There was no revenue on 96% of timber harvesting in Southern Tanzania (Traffic) in 2004.
3.1.3 Taxation

Most governments receive 10 to 40 percent of their national income from taxation. As mentioned earlier, the tax revenue is currently at approximately 12 percentage of GDP. Tanzania receives little revenue from taxes for several interlinked reasons.

In the 1980s and early 1990s Tanzania had a rent-seeking driven tax system, characterized by different tax rates, weak enforcement, tax evasion and a large number of statutory and discretionary exemptions. The system was not designed to secure sufficient funds to finance Government activities but to feed a privileged elite (Fischer, 2003). There was wide agreement among Tanzanian businesspeople that bureaucrats including high-ranking officials were eager to cooperate, assist and even offer guidance on how to beat the system, in exchange for a fee. Together with tax-evading business people tax enforcers benefited from the rent-seeking tax system and therefore directly and indirectly resisted changes that threatened their rent income. Tax evaders could not succeed without the collaboration of Government officials, who created and maintained a parallel tax system. The difference between government and the parallel tax department is that the latter is “more efficient, more service oriented, has absolutely no bureaucrats and collects more money than its government counterpart...” (Mufuruki and Rugemalira, 1996 p. 5 in Fischer). In 1995 the Tanzanian Revenue Authority (TRA) became responsible for assessing, collecting and accounting of revenue on behalf of Government because of persistent weaknesses and problems in the tax administration and pressures from the donors. Several measures to improve performance and to reduce incentives for cheating were introduced.25 After a decade of poor performance, tax collection became more efficient but also more coercive. Changes in the tax system have empowered tax enforcers at the expense of the businesses and citizenry. With an incentive system in place for tax collection, an increasing number of people have been complaining about harassment from tax collectors. At the same time, the parallel tax system has not disappeared (Fischer, 2003).

### Table 3.1 Taxpayers in Tanzania

<table>
<thead>
<tr>
<th></th>
<th>July 2003</th>
<th>March 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered taxpayers with Taxpayers identification Number(TIN)</td>
<td>190.000</td>
<td>277.488</td>
</tr>
<tr>
<td>Registered taxpayers of Value Added Tax (VAT)</td>
<td>13.634</td>
<td>5.958</td>
</tr>
<tr>
<td>Number of ‘large’ taxpayers that pay over 70% of domestic taxes</td>
<td>100</td>
<td>286</td>
</tr>
</tbody>
</table>

In March 2006 there were 286 large taxpayers, mainly medium and large formal sector businesses, that paid over 70% of domestic taxes in March 2006.26 In July 2003 there were 100 ‘large’ taxpayers. Tax revenue collection has increased over the years, but not enough to maintain the investments in the public sector.

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25 Revenue targets, increases in salaries (salaries paid at TRA are much higher than in other Government Departments), asset declarations and telephone hotlines for complaints and technical steps were introduced.

26 The revenue base excludes many professionals, such as lawyers, doctors, private consultants and poor informal sector enterprises.
3.2 Tanzania’s revenue bargain

Amongst policymakers tax revenue is seen as important for macro-economic stability, funding of social services and maintenance of basic infrastructure. Questions about taxes revolve around how much money should government gather as tax, how it should be distributed among actual or potential taxpayers and how potential adverse economic costs of taxation are contained or minimized. Some economists believe that taxes are set too high in Africa and that increased taxes may retard the growth process and increase tax evasion and resistance to paying taxes.1

The World Bank and others argue that well designed revenue systems can take into account the tension between local governments’ need for revenue on the one hand, and economic growth (business development) and poverty reduction on the other. A well-designed tax system is seen as one that generates revenue in a pro-poor way and reconciles the needs of different stakeholders. For citizens the tax system should be transparent and easy to understand, fair and equitable in design and administration, linked to services and low in compliance costs. For businesses, the tax system should, in addition, be conducive to the business environment, efficient and avoid barriers to enterprise development.1

The capacity of tax administrations to collect, locate and monitor tax bases is often weak and some have argued that illegal rents taken in tax collection may lead to more efficient tax collection. Another study from Ghana proposes legitimate ways of giving incentives to tax collectors (see Fjeldstad, Tungodden 2003).27 What most of these debates about taxation have in common is that they skirt the debate about the importance of power relations in the dynamic political processes in the forming of tax policy.

‘The American Revolution had, among its memorable rallying cries “No taxation without representation”. This meant that the right of the government to tax citizens could only be based on its accountability to citizens. What we face in a number of contemporary aid-dependent democracies is a reversal of that dictum: “No representation without taxation”. This threatens to undermine democracy.’ (Mkandawire, 2005)

The reason for the reversal of the famous slogan ‘no taxation without representation’ has to do with the reversed power relations between citizen taxpayers and states in many developing countries. Tanzania, like many other African countries, is relatively independent of its citizens for revenue. Most revenue comes from natural resources, foreign aid and some large businesses (large taxpayers).

Redistribution is often in the form of exemptions, employment or special deals with politically powerful people or groups. For instance, there have been frequent announcements from Government about reducing tax exemptions but they are still considerable and lead to the widespread perception of ‘unfairness’ in the tax system.28 Taxing medium and large

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27 In Political economics literature taxes are often discussed in relation to the distortion of prices and the creation of a wedge between supply and demand bringing efficiency losses in the form of deadweight losses. Setting taxes is about trust and if the government misbehaves it loses credibility and future taxpayers will withdraw their transfers breaking the social contract. Taxes and public services to regions have been studied in models where there is a threat of secession that influences redistributive policies. The policy issue of taxing capital or labour is also discussed amongst others.

28 For instance, 50% of value added tax (VAT) was not collected due to tax exemptions the last couple of years.
businesses has lead the government into conflict with business and political elites. In order to
deal with them the state gives concessions in the form of ‘special deals’, tax exemptions or
laxity in tax enforcement.29 There exists a ‘Large Taxpayers Association’ with strong
political and economic ties that bargains and negotiates with the government. Driven by
ambitious collection targets from the Ministry of Finance and foreign partners, tax collection
may, in case the large businesses do not perform, be conducted in an aggressive way on
those with few or no political contacts. Policies target these powerful groups directly and
bargains are often in the form of concessions and the granting of exemptions by the state.

Political circumstances have also undermined tax revenue collection. According to Fischer
(2003) the government has downplayed problems of low tax revenue and suggested internal
reasons for the failure in raising tax income. In other cases, the Government has simply
pretended to be ignorant and astonished about an adverse development. Because of the tax
crisis that broke out in the in the 1990s the Tanzanian delegation argued that substantial
deviations between projections and actual collections in domestic revenue were mainly
associated with insufficient external (foreign aid) inflows.

3.3 Local Government Finances

In the audit findings the financial year 2005/2006 the Controller and Auditor General (CAG)
revealed that TShs 273 billion ($220 million) could not be accounted for at the different
levels of government. Only 10 out of 51 central government ministries, departments and
agencies were given completely clean audit reports and only 3 out of 124 local government
authorities (LGAs) received completely clean reports. Evidence from the Controller and Auditor General unmistakably demonstrates that Tanzania’s society has suffered from large-scale embezzlement of public funds. Low
capacity to conduct proper accounting, poorly organized offices and sloppy work attitudes
provide some explanations for very poor financial management standards. On the other hand,
late submission of accounts and poor financial management and public procurement
standards are the backbone of large-scale embezzlement of public funds and may not reflect
the civil servants’ real inability but rather their strategic inability (Fischer, 2003).

3.3.1 Fiscal decentralization

Tanzania comprises 21 regions that are de-concentrated units of central government. Local
administration comprises 114 Local Government Authorities (LGAs). In 2004/05 the LGAs
were divided into 19 urban councils and 95 rural district councils.30

As a result of much dissatisfaction with centralized planning a policy of decentralization by
devolution has taken taking place in Tanzania since the end of 1990s. Administrative,
political and fiscal responsibilities were assigned from central to local governments in an
effort to improve local accountability and the level and quality of public services. Tanzania’s
form of decentralization is that of “decentralization by devolution”.31 Local governments

29 Arguably, Tanzania grants most exemptions in Africa.

30 Some new LGAs have been created the last few years. See local gov fiscal review

31 Devolution the sub national government acts, decides and generally behaves as an independent,
self-determining power. The LGAs have become semi-autonomous legal entities, governed by
elected councils, with their own recurrent and development budgets. The LGAs delegate power to
were to be given increased fiscal autonomy and increased local management capabilities to enhance own revenue generation. Decentralization of responsibilities to local governments has been only been partial. The revenue autonomy of local governments is still very limited. Central government remains in control of most of the good tax revenues. Today the tax basis consists of 80% collected from Central Government level, and 20% from Local Authorities (June 2005, Tanzania Revenue Authority). Currently the central government employs roughly 30% of the public sector, the rest are in local government and are mainly employed as teachers and health workers. Nevertheless only about 30% of total budget of the Tanzanian economy is transferred to the Local Government level.

There are three main sources of revenue at the local government level: Central government transfers, foreign aid and local governments own source revenue.

3.3.2 Intergovernmental transfers

Intergovernmental transfers consist of transfers from the central government and foreign partners. On average, local governments received 93% of grants from outside their constituencies, through intergovernmental transfers either from central government or foreign partners. This share is even higher in rural areas and disadvantaged areas. The system of local government allocations leads to limited discretion for local governments in implementing their expenditure responsibilities. Limited discretion is seen as a major impediment to assuring the adequate, efficient, and equitable delivery of local government services.

Table 3.2 below shows that in FY 2004/05 only 5 percent of grants to local governments were unconditional funds over which LGAs had total spending discretion. There has been a slight movement towards more spending discretion in 2005/2006.

<table>
<thead>
<tr>
<th>Grants</th>
<th>2004 / 05</th>
<th>%</th>
<th>2005 / 06</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditional</td>
<td>481,571</td>
<td>95</td>
<td>457,421</td>
<td>91</td>
</tr>
<tr>
<td>Unconditional</td>
<td>25,000</td>
<td>5</td>
<td>44,634</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>506,571</td>
<td>100</td>
<td>502,055</td>
<td>100</td>
</tr>
</tbody>
</table>


In addition to limited discretion, another concern has been how the distribution of resources from central government and donors has historically been determined (see Boex, 2003).

3.3.3 Foreign aid

Currently about 90% of development grants to local governments are funded by foreign partners. Official statistics do not include some foreign aid which goes outside the budget to projects. Increasingly more of the funds from development partners has been consolidated into general budget support to the central government through the Local Government Capital Development Grant (LGCDG). The LGCDG is a performance and formula-based, central government block grant funded almost entirely by development partners (approximately 90%). Since it is difficult to determine whether intergovernmental transfers are of foreign or
central government origin I have used non-governmental and development grants as a proxy for foreign aid in my econometric model.  

3.3.4 Local government taxation

Revenue collection is considered the weakest part of the local government finances. Money is not the only exchange medium and citizens may pay compensation in the form of community service to local governments. Although local government’s authorities are responsible for 20% of government spending, over the years they have only collected roughly 6% of total LGA revenues. Typically, own sources only account for 5-6% of total funding in rural local governments, less so after the abolishment and rationalization of taxes in 2003 and 2004. Urban municipalities collect significantly more own source revenue than rural ones, especially after the tax reform. For example, the four local governments of Dar es Salaam alone account for around 35% of all actual revenue collections in 2005/2006 out of 115 local governments.

Text box 3.1 Local government tax reform

Local government tax reform

Because of a widespread agreement that the local government tax system was inefficient, unfair and poorly administered, the government undertook a large tax reform to improve tax compliance. Prior to 2003 local governments could define their own revenue structure, creating essentially 110 different revenue structures. The local authorities moved from an open to a closed list approach to raise own revenues within their area of jurisdiction. Several taxes, many of them unpopular, were abolished in 2003/2004. Business licenses, that had been very cumbersome to obtain, were removed and essentially converted to a registration. The very unpopular development Levy was abolished in 2003. Overall there was a 37% reduction in local government revenue, 48% in rural ones and 24% in urban ones. The development levy hit the rural local governments the hardest, and the urban local governments were hit by the removal of the business license. The reform lead to sharp dips in local government revenue and a weakening of local government fiscal autonomy. In some councils the shocks lead to an intensification of ‘closed list’ tax collection. The central government had to distribute an unconditional compensation grant for loss of local government revenue sources. This later became the General Purpose Grant.

Borrowing plays a minor role as source of local government finance in Tanzania. It contributes only about 0.1 percent of the resources available to local governments. There is a need to accommodate the borrowing needs of local government councils, but they are

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32 In the local government actual revenues non-governmental grants and basket funds are found. For the year 2005/2006 reporting mechanisms change. They are then called development grants + funds, and are laid out in more detail. I have included all the development grants: LGCDG, TASAF, Road fund, Water fund into my foreign aid measure. Questionably LGCDG is a central transfer but 90% of it is funded by development partners.

33 The extent of community service is unexplored in the literature. Community contributions contribute very little to revenue. Other arrangements such as user fees give a clear link between services received and payment but are less common.
currently not in financial position to meet their loan obligations. Most of the LGAs are currently not creditworthy. Because of their current default rate of around 30 percent – it is not considered prudent to lend LGAs additional financial resources.

3.3.5 Reasons for weak collection of taxes at the local government level

One of the major problems of local governments in Tanzania is that they are unable to fully collect the revenue that is due to them. ‘There is widespread evidence in Tanzania that the legitimacy of local taxes, and people’s willingness to pay for them is strongly compromised by the perceived failure of local authorities to use local revenues appropriately and effectively’ (Local Government Financing Framework, 2005)

A review of the local revenue performance indicated that 59% of councils collected 80% and above of the local revenue against the plan. 27% collected between 50-80% of actual against planned revenue and 9% collected below 50% (LGCDG assessment of 2006). Improving the capacities and incentives of administration to enable them to claim, locate, and collect new tax bases are major obstacles for collection of revenue.

One element that influences both the capacity and willingness to collect taxes is the lack of the reciprocity element in taxation, a fiscal exchange for taxes. Fjeldstad (2001) found that the reciprocity element in local taxation in Tanzania was largely absent in 2001 and noted that the local government level revenue collection is mainly determined by the amount of coercion in revenue mobilization. According to several surveys it seems that the underlying conditions fostering revenue bargaining in Tanzania are becoming more favorable after the tax reform.34 There have been clear improvements in the perceptions of citizens on public services and people have increased confidence in the government. In 2003, immediately after the tax reform, 45.6% reported that the major reason for paying taxes was to avoid disturbances. Three years after in 2006 only 14.1% mention that they pay taxes to avoid disturbances and as many as 50.4% mentioned that they anticipated public services.35 It seems that people understand, at least in theory, the concept of fiscal exchange and that societal compliance with respect to taxes may have increased.

There are several reasons for low government capacity and incentives to broaden the tax base.

Little fiscal necessity to broaden the tax base

Central government has little fiscal necessity to break out of the narrow revenue base of businesses, aid and natural resources. Enhanced taxability requires the tedious process of formalizing the economy--re-shaping both society and the economy. In addition, the organizational effort required to recruit, manage or supervise agencies that actually collect

34 Two Citizen surveys of REPOA (2003 and 2006) and the Poverty and Social Impact Analysis (PSIA)
35 Public service satisfaction can give some information on tax compliance. 80.3% on average think that the government is doing a good job in improving public service delivery in the country. People are in general satisfied with education and health, but less so with water and agricultural services. The perceptions of law and order have also increased (18.6 to 34.5). More people mention that they will be willing to pay more taxes if public services improved. More people are less resistant in paying taxes because they can see that there are improvements in public services. (see tables in appendix) respondents. 53%male, 47% female from the same six councils of Tanzania Conducted by REPOA/CMI. Citizen survey 2003 and 2006. 1260
revenue can be costly (Moore, 2007). Receiving revenue from unearned revenue requires less organizational effort making it an easy option for many African states. In Tanzania rents from the export of natural resources are important in financing the governing elites and the state.36 Local governments, on the other hand, are able to finance most of their expenditure from central government transfers and non-governmental transfers without imposing any burden on local taxpayers. The lack of a hard budget constraint weakens incentives to collect tax and also makes local governments less disciplined in their expenditure and encourages waste.

**Reluctance to decentralize good revenue instruments to local governments**

Central government often assigns unpopular taxes to local government that fall heavily on small taxpayers. These taxes are considered harder, costly and more controversial to collect and provide a lower yield. Although they constitute the majority in a democracy, small taxpayers contribute little to state coffers and are undesirable to court politically. There is little need for the government to cultivate societal compliance over such taxes and remove workers discontent about them.37 Good revenue sources are not devolved to local governments for several reasons. Central government needs good revenue sources to be able to carry out stabilization and macroeconomic adjustment through the budget. Another reason for limiting the fiscal responsibilities to local governments is the supposedly low capacity that exists at the local government level.38 A third reason and perhaps most importantly, is that proposed by fiscal theories of governance. This reason is perfectly logical when one considers the central governments own track record. Central government concerns about decentralizing revenue instruments have less to do with worries about local government waste, mismanagement and corruption and more to do with the potential loss of power resources.

**Weak government incentives to improve state capacity**

Without the need to cultivate societal compliance over taxes and collect taxes, there is less incentive to improve the bureaucratic structure and administrative capacities to assess the revenue base, enforce the payment of taxes and collect the revenue due to them. Since the bureaucratic structure is weak, the economy operates without the extensive use of banking

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36 Notwithstanding that it became a multi-party state, strong ties remain in Tanzania between the state and the party that has ruled since independence in 1941, and natural resources are important in financing the ruling political and bureaucratic elites.

37 Most areas, besides the major cities yield little tax revenue and collection costs are high. The incentives to broaden the tax base to agrarian areas are weak since tax collections their often yield little revenue and the collection costs are often high due to high traveling costs and poor infrastructure. Fjeldstad (2001) mentions that before the tax reform some rural areas collected taxes in order to pay for the tax collection itself.

38 In 2003, before the tax reform, Fjeldstad (2001) concluded that it was unrealistic to expect that increased fiscal autonomy would improve governance because the administration had neither the capacity or integrity required. Critics of decentralization, based on a series of opinion surveys, argued that there was a lack of public trust in local government. As a result local governments have been claimed to have insufficient capacity and lack accountability to ensure sound delivery of public services. (Fjeldstad, CMI/REPOA) Others argue that the opinion surveys had limitations and failed to deliver any comparative data on central government performance in delivery of public services. ‘The studies isolate the negative impacts of shortcomings in the design of the overall local government finance system (for instance, the inadequate assignment of expenditure responsibilities for local administration as discussed above) which are simply beyond the control of the local government level. They claim that local authorities, when properly financed, are clearly in a better position to provide public services in a more effective manner than central governments. (LGFF 2005, Georgia State University)
systems and written or electronic records of economic transactions. Tax collection often happens with the tax collector and the taxpayer meeting up in person. Tax collectors are often blamed for poor tax collection, and the direct contacts between tax administrators and taxpayers lead to excessive revenue discretion and revenue corruption. It also leads collection to happen with conflict and result in arbitrariness and coercion. What's more, tax collectors can also exploit a complicated tax system which is less accessible and understandable to ordinary people. Complicated, non-transparent local revenue is costly to administer and facilitates corruption and mismanagement (Bardhan & Mookherjee 2002). Poor farmers are highly immobile making them especially vulnerable to predatory tax collection.

Weak enforcement of taxes may lead to explicit and intentional tax evasion and resistance from citizen taxpayers. Weak administrative capacities may lead to poor design of revenue instruments and assessment of revenue bases may lead to economic distortions and ‘unintended’ distribution effects. Sometimes poor design leads the tax burden to fall more on the poor than on the relatively better off in local communities (regressive taxes). Unfair tax systems lead to more tax evasion and resistance that lead to increased collection costs and lower revenue collections. In addition, inappropriate timing of tax-collection makes taxation even more impoverishing for small taxpayers. Taxes are typically collected during the off-season, when people are cash-constrained. Furthermore, distorting effects on resources allocation may restrain start-ups of new enterprises and achievement of economic growth. Weak tax administrational capacity may also lead to weak and unrealistic budgeting.

Political pressures to relax collection

Many Tanzanian studies cite political pressures to relax collection as a contributing factor in the low levels of local revenue collections. For local politicians the important objective is to get re-elected. Politicians may say they want an efficient tax administration – but only to the point at which voters being taxed stop complaining that they are being harassed (Fjeldstad, 2001). Councilors are also reluctant to raise local taxes and revenues because they fear losing popularity amongst major local landowners or businesspeople.

The undesirable two-fold effect of incentive schemes to improve collection

In clientelist environments incentive schemes that encourage local governments to hit revenue targets have an undesirable two-fold effect: Firstly, it may increase aggressive tax

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39 In 1996 the collection ratio, the percentage of the estimated tax potential collected was 26.7% in Kibaha DC, compared to 45.6% in Kilosa. Fjeldstad found that the performance of tax collectors at the ward and village levels is related to their capability to collect enough revenues to cover their wage bills. This was supported by observations from the districts of Kibaha and Kilosa.

40 The PEFAR fiduciary assessment for 2006 found that the multiplicity of planning, budgeting and reporting requirements undermines the integrity of the whole budgeting process. In addition multiple reports are produced which are designed for the use of Central Government and donors and not for the effective and efficient management of the Council itself or for sound local accountability. Unpredictable funding from central government and donors also weakens the realism of budgeting. Local government budgets are seriously undermined by changes in block grants ceilings by the central government after the budget is approved by the local authority. Local level budgets are also undermined with significant unbudgeted transfers from sector ministries.

41 In Kibaha and Kilosa CCM politicians tried to moderate the tax collectors efforts to enforce taxes during election years by issuing statements such as ‘don’t harass taxpayers‘ or ‘relax on tax collection‘. Opposition parties, in contrast, approached taxpayers directly and advised them ‘not to pay taxes‘, since taxes, according to their view were used to finance the CCM government. (Fjeldstad 2001)
collection and the use of coercion, and secondly, it strengthens ‘efficient’ local governments bargaining power over citizens by making them less dependent on them for income. Focusing on improving tax collection in a country where there is no such social contract can lead to further alienation of citizens rather than involvement. ‘Where a social contract linking taxation to public service delivery has not been established in practice, as when a political culture of patrimonialis (other word for clientelism) predominates, simply increasing the effectiveness of tax collection may not result in more efficient services. In fact the intensification of tax collection efforts may lead to the further alienation, rather than the involvement, of citizens’ (Fjeldstad, 2001). Aggressive tax collection may be efficient but it creates less societal tax compliance in the long run by destroying the trust between government and people. The short run gains in efficiency of tax collection are not worth the long run cost (Fjeldstad and Tungodden, 2003).

**Weak citizen incentives to pay taxes**

There are many reasons why taxpayers perceive public services as low-value for money. Firstly, much of own source revenue is inefficiently spent on financing administration per se rather than actual public services. The incentives to pay taxes when these are used for administration costs of the local government are extremely low. Secondly, widespread theft of tax revenue in the local authorities means that taxes are not spent on public services but end up in the pockets of local officials. Thirdly, little emphasis on local needs leads to weak incentives to pay taxes. Since local governments receive most of their funding through conditional funds local priorities may be overridden or derailed by national priorities.

**Text box 3.2 Revenue collection in Handeni district**

In the rural Handeni district of Tanga region own source revenues, after the abolishment of the development levy, are about 2-3% of total grants. By the end of January 2007 46% of the estimated revenues had been collected from 33 sources.

It was found that the council is neither well informed about its revenue capacity nor about performance. Record keeping was weak and there existed no transparent and detailed long-term data that are necessary for professional estimation of revenue. There were therefore enormous differences between collected and estimated revenues. Knowledge-level about own source revenue issues are low amongst executive officers, citizens and taxpayers, including the meaning or importance of district revenues. Revenue seems to be of little concern for Ward Executive Officers and Village Executive Officers in monthly meetings and it was found that in most cases Village Executive Officers did not undertake to collect revenue; in some cases no funds at all had been collected over a seven-month period. This was not seen as unusual. Citizens sometimes did not trust revenue collectors and sometimes helped the taxpayers to evade paying taxes. Taxpayers do not see services provided through revenues. There is little access to information on taxes and little communications between different levels of the bureaucracy.

Source: Szögy (2007)
The case of Handeni is a representative example of revenue collection in the districts of Tanzania. Revenue plays a very small role in local government affairs. Most funding comes from outside and local government officials have few incentives to bargain with people over tax issues. At the same time people see little reason to pay taxes and evade them.

3.3.6 Local government expenditure

Local expenditure is divided into maintaining and developing public sectors, recurrent and development expenditure. In FY 2005/06, about 80 percent of all local government spending related to recurrent items, while the remaining 20 percent was devoted to development expenditure. Recurrent expenditure goes to personal emoluments (salaries of civil servants such as teachers and health workers) and other non-wage charges (such as books and desks). Development expenditure goes to investments in the high priority sectors (education, health, road, agriculture, and water). Education and health account for over two-thirds of all LGA expenditures, the largest expenditure sector being education, second largest health. Recurrent expenditure on agriculture, roads and water make up only 5 percent of total local expenditures.

In practice the functions and expenditure responsibilities assigned to the local level can be divided into three types: so-called ‘concurrent’ local government functions, ‘exclusive’ local functions, and delegated functions. The Local Government Finance Framework (LGFF) policy document concludes on expenditure responsibilities that ‘finance should follow function’. Concurrent functions are almost entirely funded by inter-governmental transfers. Delegated functions such as epidemics are funded by inter-governmental transfers. Own source revenues from taxation along, with the General Purpose Grant, are the revenues without any conditions attached to them. Exclusive functions such as truly local public services (i.e., garbage collection), and administration costs for recurrent and development expenditure are to be funded by the local governments’ own source revenues and the unconditional General Purpose Grant.
4. The expected observable outcomes of fiscal theories of governance

In order to discuss the two competing fiscal narratives and their observable governance outcomes I will describe the three main elements of the fiscal relationship between citizens and states. Each theory puts unequal weight on each of these elements. Subsequently, I will make an hypothesis about what types of fiscal theories one should expect in rural/urban areas and advantaged and disadvantaged local governments and the corresponding observable outcomes.

4.1 Contractual and coercive taxation

Fiscal relations between states, donors and citizens affect accountability relations in direct and indirect ways. To understand the fiscal links between states and citizens it is important to understand tax compliance. The relationship between a taxpayer and the local government includes at least three elements (Fjeldstad, 2006):

1. Fiscal Exchange.
2. Coercion
3. Social influences

Fiscal exchange has an element of reciprocity. A taxpayer’s behavior is affected by their satisfaction with their terms of trade. Individuals pay taxes willingly in order to receive something in exchange. There is always a coercive element in tax collection as represented by enforcement activities of tax collectors and the penalties imposed for tax evasion. Credibility of the revenue administrations and sanctions against free riders is important in this context. A third element is the impact of social influences. Compliance behavior may be influenced by the individual’s reference group. The larger the fraction of the local population that is observed not paying, the lower the perceived risk of being prosecuted is. Greater individual participation may foster an increased level of compliance (Fjeldstad, 2006).

A tax is an involuntary payment to a government (by households and business firms) that does not involve a quid pro quo benefit. This is why one speaks of quasi-voluntary rather than voluntary compliance of citizens to pay taxes. Quasi-voluntary compliance contains all the above listed elements. Tax relationships involve trust between citizens and states: the trust in the local government to use revenues to provide expected services, to establish fair procedures for revenue collection, and in other citizens to pay their share is important. Based on the three elements above two competing fiscal theories of governance have been created with different effects on governance. Contractual taxation, which I have argued can be politically constructive, puts relatively more weight on the element of fiscal exchange.

Contractual taxation involves:

• a more or less explicit exchange of tax revenues for services
• a tax process characterized by: institutionalized, negotiable methods of assessing and collecting revenue

43 The element of trust and its implications for tax compliance have been studied by Slemrod (2003).
• the 'quasi-voluntary compliance' of taxpayers
• a voice for taxpayers in setting tax policy

Coercive taxation, which can be politically destructive, is characterized by variable combinations of:
• arbitrariness in assessing tax liabilities
• coercion in the collection process
• the absence of any representation for taxpayers in arenas where tax policy is decided
• taxes are not exchanged for anything much except, hopefully, the protection of taxpayers from the demands of competing tax collectors
• The size of the unofficial economy can serve as an indicator of coercive taxation
• Aid substitutes for taxation

Whether some fiscal relationships are good or bad is not always easy to say. Revenue bargaining can be direct or an indirect strategic interaction between state and society. The more observable indicators are: (a) the presence of revenue issues on the public policy agenda; (b) collective action by groups of taxpayers around taxation issues, whether through electoral or other channels of representation; and (c) the willingness of government to interact with and respond to taxpayers' expressed or anticipated preferences in making public policy (Moore, 2007).

Clientelism leads to a generic under provision of public goods because, by their definition, these are blunt and benefit all people. This is not politically attractive when politicians want to reward their clients only and exclude others from the benefits. Providing public goods would improve their position and make them less cheap to buy during elections. Gibson and Hoffman used public services as a proxy for ‘democratic governance’ when examining local governments in Tanzania and Zambia. Thus, the larger share local governments generate of own source revenues through taxation, the more ‘citizen-friendly’ policies will be implemented. However, I argue that using public services as a proxy for accountable and responsive government is wrong when this sector is almost entirely donor-funded. Instead of using public services to reward clients, clientelism involves rewarding clients with employment. A job can be targeted to a person in exchange for support whilst public goods are non-targetable and provide non-excludable benefits (Robinson and Verdier, 2002). As a result public expenditures may be systematically misallocated to bulky state administrations, often at the expense of social services. Other ways of rewarding clients is through tax concessions or laxity in tax enforcement. Gibson and Hoffman assumed that transfers not received through taxation, central transfers and foreign aid, would lead to more ‘government-friendly’ policies, i.e., ‘government consumption’ - including administration costs, other charges and personal emoluments.

Although surveys show that people in theory understand the concept of fiscal exchange, researchers have found that the reciprocity element in taxation is largely absent in local

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44 The informal economy can conceals a significant amount of economic activity from the state. It is particular a refuge for small private businesses, seeking to hide income from the state.

45 Gibson/Hoffman made the assumptions that: there were no differences in institutions across sub-national governments (all local governments are equally well governed) and that people want more and better public services (investment in schools, hospitals, roads) – not government consumption (salaries, administration costs).

46 Empirical research has provided support for the proposition that the expansion of redistribution programs can be attributed to a reduction in the administrative costs of tax collection (Persson and Tabellini, 2003).
governments of Tanzania. It is a paradox that the system of financing local governments does not emphasise the importance of the concept of fiscal exchange. One would therefore expect that there is no explicit exchange of taxes for public services in local governments.

Without a real fiscal exchange (an explicit exchange of public services for taxes) one would expect more tax evasion, more unstable revenue collection, and a low ‘tax take’. A low tax take can be due to weak ability to collect taxes. It also can be due to a lack of incentives to collect taxes. This is not easily observed in the financial data. If there was a fiscal exchange, tax collectors would have incentives to collect taxes and citizens to pay for them. Hence an indicator of coercive taxation is that other sources of revenue (aid and central government transfers) substitutes for tax collection. In this case one would expect that the difference between projected tax collections and actual tax collections becomes larger when larger shares of local government revenues are funded by aid and central government transfers. Furthermore, looking at differences between budgets and actual expenditures can be seen as an indicator of the realism of budgeting and indirectly of administrative capabilities.

4.2 Urban – Rural dimension

‘While rural, remote areas lack the capacity to raise and spend revenue effectively and rationally it is only in urban areas where the educated are and civil society organizations the densest that links among democracy, accountability, and fiscal decentralization hold weight’ (PSIA, 2006). Urban municipalities receive more taxes, are generally more educated and have stronger democratic institutions (stronger media and political opposition) than rural local governments. The lion’s share of the urban councils’ own revenues is generated from various taxes, fees and licenses imposed on businesses.

The administrative capacities are higher because urban areas in general have higher income (salaries, monetary allowances, spousal income, other income-generating opportunities), higher job satisfaction (more specialized training, higher career paths) and better living standards (better physical infrastructure and communication, better quality housing, education and health facilities). Thus, state-citizens relations should be different in rural and urban governments. The willingness of government to interact with and respond to taxpayers' expressed or anticipated preferences in making public policy should be higher in urban areas. All in all, one would expect that fiscal relations are more politically constructive in urban areas and that own source revenues provide a better exchange for taxes through public services. A marginal increase in the share of own source revenue (taxes) should lead to more ‘citizen-friendly’ policies such as increased public services, and decreased government consumption (total recurrent costs such as administration costs, personal emoluments and other charges). Indicators of financial management and the realism of budgeting should also be stronger in urban areas. More actual taxes collected should lead to an expected smaller gap between budgets and actual expenditures and budgeted revenue. In rural local governments, where coercive tax collection is strongest, one would expect that taxes are not exchanged for anything much. One would also expect that aid could substitute rather than complement for taxes in rural areas.

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4.3 Advantaged- Disadvantaged divide

As in many developing countries there has been a ‘brain-drain’ from rural remote areas to more developed areas. Lack of capacities in the rural areas may not only reflect real inability but also to strategic inability due to a lack of incentives. When employment is governed by political criteria rather than merit, employees are not given incentives to work hard because they cannot be credibly threatened or sanctioned. Staffing problems may serve as a hindrance to efforts to improve service delivery, quality and accessibility, the decentralization process and efforts to improve governance. Although it is generally agreed that the financial capacities continue to be a limiting factor at the local government authority level, very little effort has been conducted into quantifying the costs of low capacities, vacant and unqualified staff in the administrations.\textsuperscript{48} A study of disadvantaged local governments looked at the lack of adequately qualified senior staff in the administration and an index over disadvantaged local governments was designed based on three staffing surveys from 2003 to 2005.\textsuperscript{49} The local governments with persistent and severe staffing problems are usually in rural and remote areas and the geographic area of these disadvantaged areas has not changed over the years. The advantaged districts are mostly urban and the developed local governments with few pressing staff problems.\textsuperscript{50} One would expect that the observable characteristics of contractual taxation are more prevalent in advantaged areas and the observable characteristics of coercive taxation more prevalent in the disadvantaged areas.

\textsuperscript{48} Few local authorities have qualified accountants and auditors and book keeping standards and financial routines are generally of a poor standard (Sundet, 2005). Lack of capacity and skilled personnel was identified as the greatest impediment to conducting sound public procurement by the 2003 joint procurement review (World Bank 2003b in Cooksey, 2005). Low capacities can also be strategic. Low salaries may make civil servants resort to shirking and corruption to make ends meets and other government inefficiencies.

\textsuperscript{49} One staffing survey is a PriceWaterhouseCoopers survey in 2003 and another is one conducted by the Zonal Reform Team in 2005. Both these measured vacancy problems in LGA’s. The data is also based on a non-qualified and vacancy index from 2005. Each LGA was given points according to the three point schemes, one of each survey. Each score was summed and sorted into the disadvantaged LGA’s index. The index was divided into 5 levels and mapped. Since some LGA’s were missing in the ZRT survey from 2005, the non-qualified and vacancy index was used in that case.
5. Empirical model

Firstly I will discuss the econometric model I have used to examine fiscal theories of governance. Secondly, I will present the data used and provide some descriptive statistics. Thirdly, the main findings from the model will be discussed. Finally, the robustness of the model will be tested and discussed.

5.1 Econometric estimation equation

I wished to explain actual expenditure by actual revenue sources. I pooled actual expenditures and revenues for 114 districts, for a five-year period 2002-2006. I have a large number of cross sectional units but few time periods. The data set has a large N and small T and can be used in panel data models or ordinary pooled OLS.

In contrast to the pooled OLS model, the constant terms, varies for each cross-sectional unit, either randomly or in a fixed way, but the slopes are assumed to be the same. There are several reasons for why I should use a panel data model and not ordinary pooled OLS. One reason is that unobserved individual and/or time heterogeneity influences the variable of interest, and are correlated with observed explanatory variables, then the estimated effects of these variables will be biased. It will lead to omitted variables bias in pooled OLS and many individual characteristics will not be correctly observed.

Two-way fixed effects model

In the presence of individual and time heterogeneity it is wise to focus on the fixed effects model unless one is absolutely sure that explanatory variables are uncorrelated with the composite error. Since my main explanatory variables are time varying, and I can split up the full model into nested models according to the dimensions of interest (urban-rural and the advantaged-disadvantaged dimension), I gain little from using random effects. I have used the random effects model for robustness checks later.

- The ‘two-way’ fixed effects model specification:

\[ y_{it} = \phi + \alpha_i + \gamma_t + \beta x_{it} + \epsilon_{it} \]

\( i \)-(cross-sectional unit, district) , \( t \)-(time-unit, year).

The problem of multicollinearity - the time and group dummy variables both sum to one - is avoided by imposing the restriction:

\[ \sum_i \alpha_i = \sum_t \gamma_t = 0 \]

Since \( T-1 \) (one time effect must be dropped to avoid perfect collinearity) is small it is reasonable to assume that individual and time effects do not interact and are additive. The 2-Way FE model can then easily be estimated using a 1-Way program by adding time dummies \( \gamma_t \).

How the fixed effects transformation solves the omitted variable problem

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51 Estimating slopes individually would require more time observations and is what time series models do.
When working with cross sectional data the correlation between explanatory variables and the unobserved individual effect can be solved by obtaining a suitable proxy for the unobserved effect, obtain instrumental variables for the element of $X$ which is correlated with $C$, or indicators of $C$ that can be used in multiple indicator instrumental variables procedures.\textsuperscript{52} In contrast to cross-sectional and time series data, when using panel data there are approaches that can completely remove the two-way heterogeneity.

The two-way ‘within’ transformation removes both observed and unobserved heterogeneity, for both individual and time effects. The omitted variable problem is solved in the fixed effects transformation by differencing, subtracting the averages of each time-varying explanatory variable from the same explanatory variable.

Time specific effect –

$$\begin{align*}
y_{it} &= \phi + \alpha_i + \gamma_t + \beta X_{it} + \epsilon_{it} \\
y_i &= \phi + \alpha_i + \gamma_t + \beta \bar{X}_i + \bar{\epsilon}_i
\end{align*}$$

Subtracting the average observations from equation (2) on equation (1) we get: (3)

$$\begin{align*}
y_{it} - y_i &= \beta (X_{it} - \bar{X}_i) + (\epsilon_{it} - \bar{\epsilon}_i)
\end{align*}$$

The individual-specific effect and the time-specific effect are eliminated in the transformation.

OLS can now be run on $y_{it}' = y_{it} - \bar{y}$ and $X_{it}' = X_{it} - \bar{X}$.

In order to use the random estimator one has to be confident that the composite error is uncorrelated with the explanatory variable. In the later section on robustness I test for this using two different approaches, first testing the FE against OLS, and secondly FE against RE. I find that OLS and RE are inconsistent and thus their efficiency is irrelevant.

I show that RE and OLS are under specified using new misspecification tests to detect such under-specification that are available in Stata 9 and Stata 10.

The FE uses an inefficient amount of dummy variables in the calculation of estimates, equivalent to random effects with time and district dummies, but it is the most efficient consistent estimator. A drawback with FE is that all time-invariant variables (such as poverty and human development indicators from 2002) disappear in the transformation because only effects across time are taken into account (within) and not the between effects.

Assumptions on the idiosyncratic errors

$$E(u_{it} \mid X_i, C_i) = 0 \quad t = 1, \ldots, 5$$

This assumption implies that the explanatory variable is exogenous, conditional on the unobserved effect, $C$.

$$E(C_i \mid X_i) = 0$$

\textsuperscript{52} Woolridge, 2002
The fixed effect estimator allows for arbitrary correlation between $X_2$ and $C$. The expectation of the unobserved effect, conditional on the explanatory variables, can take any function. Partial effects can be consistently estimated in the presence of time-constant omitted variables that can be arbitrarily related to the observables.

For each $t$

$$\text{var}(u_{it} | X_i, C_i) = \text{var}(u_{it}) = \sigma_u^2$$

For $t \neq s$

$$\text{cov}(u_{it}, u_{is} | X_i, C_i) = 0$$

Idiosyncratic errors are assumed serially uncorrelated. If the assumptions used for OLS on standard error are valid, the fixed effects model produces the best (minimum variance) linear, unbiased estimators (BLUE). However, since the sample is heteroscedastic the estimated variances for the point estimates are inconsistent. Since modelling individual variances of each local government is almost impossible when I have only 5 time periods I instead use cluster-robust standard errors that are consistent in the presence of heteroscedasticity.\footnote{Stock and Watson have shown that the usual heteroskedastic-robust SEs for the fixed effects estimator are not consistent, but the cluster-robust ones are. http://www.nber.org/papers/T0323} With clustering at the district level observations are assumed independent across districts, but not necessarily independent within districts. Cluster () only affects the estimated standard errors and variance–covariance matrix of the estimators, not the estimated coefficients. The asymptotics relies on the number of districts (clusters) going off to infinity. Provided that $T$ is small relative to $N$ the cluster robust standard errors are correct in the presence of any heteroscedasticity or serial correlation in $\mu_{it}$ The efficiency of the FE estimator depends on the degree of serial correlation.
5.2 Data presentation and descriptive statistics

Text box 5.1 Variables included in the econometric model

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<th>Model</th>
<th>Variables</th>
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<td>Public services (total development costs)</td>
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<td>Other charges</td>
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<td>Total expenditure (in 1000TShs)</td>
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<td>Share of own source revenues</td>
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<td>Share of development grants (proxy of foreign aid)</td>
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<td>Non-governmental transfers (2002-2004) +</td>
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<td>Share of intergovernmental transfers</td>
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<td><strong>Control/structural variables</strong></td>
<td>Poverty and Human Development (PHDR) variables</td>
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<td>Audit opinions and questioned revenue/expense (2002-2006)</td>
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<td>Performance indicators of local governments</td>
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</tbody>
</table>

I have used financial data on actual expenditures and revenues for 114 local districts from the period 2002-2006. I seek to explain patterns in local government expenditure by examining the variations in resource bases of local governments. See Appendix C for means and standard deviations of main endogenous and exogenous variables.

**Endogenous variables**

Development and recurrent expenditure of local governments includes personal emoluments and other charges of the five priority areas: agriculture, education, health, roads and water. Other recurrent expenditure is administration and other (specify). Furthermore I look at total expenditure on other charges and personal emoluments for recurrent expenditure. I also look at gaps between budgeted and actual expenditures on other charges and personal emoluments for recurrent expenditure, gaps between budgeted and actual expenditures on public services and gaps between budgeted and collected revenues.

54 The data are believed to be significantly correct and appropriate for analysis at the macro level by the Presidents Office and regional administration unit. For the year 2005/2006 I used a report with actual revenues and expenditures for 3quarters of 2005/2006 and projections of the last quarter. Since there can be wide gaps between budgeted and actual expenditures and revenues I focus on actual collections and expenditures.
Exogenous variables

My main explanatory variables are own source revenues, central government transfers and non-governmental transfers (a proxy for aid). Grants include block grants to the five priority areas including local administration block grant, other government grants, compensation grant for abolished taxes and basket funds and non-governmental grants. Own source revenues include the development levy (from 2002-2003), property tax, produce cesses, levies and royalties, service and other levies, land rent, licenses, fees and permits, charges and others.

The most difficult issue was how to measure foreign aid. From 2002-2004/2005 I operated with governmental, ‘non-governmental grants and basket funds’ (foreign partners) and locally generated revenues. In 2005/2006 the reporting mechanisms changed. It became more detailed but at the same time unclear as to where the sources of transfers came from. Actual collections of local revenue were still the easiest to find but the major problem was to divide what was governmental and what was non-governmental grants. Since at least 90% of the development grants are supposed to be funded by foreign donors I used this as a measure of non-governmental transfers and basket funds. 55

Control variables (see appendix)

For Tanzania the control/structural variables come from the Poverty and Human Development Report (PHDR, 2005) and geo-referenced data. 56 I include auditor generals audit opinions for 2002-2006. Regional (21), district (114), year (5) are included as an explanatory variable. I use an array of control and structural variables in the model, such as level of development (i.e., poverty rates, mortality rates, life expectancy), size of district (total population and total area), Structural economic variables are especially important because a plausible alternative hypothesis could be that more economically developed districts have more accountable governments, as Modernization Theory might predict. Appendix B explains the control variables I have included.

Descriptive statistics

The Table 1 beneath shows the shares of each source of revenue. These are the average actual revenues collected from 114 districts between 2002-2006 that are used in my econometric model.

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55 These include the LGCDG and development grants/funds for education, health, roads, water, agriculture, administration and TASAF. LGCDG is technically now a governmental transfers but it is included since it is primarily funded by donors. Since subventions are ministerial these are included into central transfers.
56 Sources of PHDR, 2005 were Ministry of Education (MoEC) Basic Statistics (various years 2004), National Bureau of Statistics (NBS) (2002a), Household budget survey (2000-2001); NBS (2003) and the population census of 2002 were used in the calculations. Household budget survey was enriched by the population census in a poverty mapping exercise. See Lanjouw
Table 5.1 Time trends in shares of revenue – averages of 114 local governments (in shares)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Development grants (mostly from foreign partners)</td>
<td>0,125</td>
<td>0,175</td>
<td>0,156</td>
<td>0,125</td>
<td>0,146</td>
</tr>
<tr>
<td>Own sources Revenues (from local taxation)</td>
<td>0,127</td>
<td>0,101</td>
<td>0,064</td>
<td>0,058</td>
<td>0,056</td>
</tr>
<tr>
<td>Central government grants</td>
<td>0,746</td>
<td>0,793</td>
<td>0,774</td>
<td>0,819</td>
<td>0,787</td>
</tr>
<tr>
<td>Total grants</td>
<td>0,999</td>
<td>1,000</td>
<td>0,995</td>
<td>1,002</td>
<td>0,989</td>
</tr>
</tbody>
</table>

The drop in the share of own source revenues from 2003 to 2004 was due to the tax reform that lead to the abolishment of several taxes including the Development Levy and Business taxes. The share of own source revenues of total grants in Local government’s is very low. Since 2002 it has decreased from 12% on average to 5.5% in 2005/2006 for the 114 districts studied.

When splitting up the sample into rural / urban councils and advantaged and disadvantaged councils we can see some of the underlying differences in resources bases of local governments. As can be from Table 6.2 below Urban councils receive a higher share of revenue from own source revenues than rural governments.

Table 5.2 – Sources of Revenue for local governments 2002-2006 (in shares)

<table>
<thead>
<tr>
<th>Average shares of revenue</th>
<th>National</th>
<th>Urban</th>
<th>Rural</th>
<th>Advantaged councils</th>
<th>Disadvantaged councils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own source revenue</td>
<td>0,081</td>
<td>0,174</td>
<td>0,059</td>
<td>0,093</td>
<td>0,067</td>
</tr>
<tr>
<td>Non-gov. Transfers</td>
<td>0,132</td>
<td>0,092</td>
<td>0,142</td>
<td>0,124</td>
<td>0,142</td>
</tr>
<tr>
<td>Central gov. Transfers</td>
<td>0,782</td>
<td>0,742</td>
<td>0,797</td>
<td>0,784</td>
<td>0,790</td>
</tr>
<tr>
<td>Sum</td>
<td>0,995</td>
<td>1,008</td>
<td>0,998</td>
<td>1,001</td>
<td>0,999</td>
</tr>
</tbody>
</table>

Development grants, and transfers from central government are a higher share of revenue in rural governments. The differences are smaller between local governments that have fewer staffing problems, advantaged areas (often more developed and urban councils) and those with more persistent and severe staff problems.
Rural council spend more on public services. This is in line with the pro-poor policies of the government and foreign donors. Disadvantaged councils, often-poor rural councils in the periphery receive the most. The level of socio-economic development in these areas is often weaker.

The Urban local governments spend more one personal emoluments, more on other charges and almost twice as much on administration costs as rural councils. One reason is that more of the development expenditure has become recurrent and is now used to maintain schools and hospitals, and the teachers and health workers employed in them.
Discrepancies in approved budgets and actual expenditure and revenue

The differences in approved budgets and actual expenditures on recurrent expenditure give an indication of the realism of the budgeting.

Chart 5.1 Approved budgets minus actual expenditure in personal emoluments and other charges for all Local governments

The chart above confirms the under-funding of other charges for the 114 LGAs from 2002-2006. The misallocation of other charges is much higher relative to the misallocation of personal emoluments, especially for 2005/2006. Previously all Public Expenditure Reviews (PER) have emphasized the actual expenditure patterns showing gross under-funding of non-wage expenditures (in particular ‘other charges’ which include textbooks and medicines) relative to personal emoluments. It has been said that budgeting makes little sense in Tanzania except when it comes to planning personal emoluments.

Deviations between budget and actual expenditure outcomes may be due to major under-funding of various key activities leading to pressures for additional expenditures, over-optimistic budget projections on the revenue side and/or weakness in estimating, monitoring and accounting. All these provide an ideal ground for ex-post reallocations of the budget according to rent-seeking pressures and priorities.

Budgets/projections and actual revenue collection

Revenue collection is the weakest part of the Local government financial system and there are large differences between projections of revenues and actual revenue collection. Revenue projections and actual revenue collections differ widely.

Table 5.4 Trend in own source budgeted – actual tax collection for all Local governments
The abolishment of the Development Levy in 2003 and the business licences in 2004 lead to large discrepancies between budgeted and actual collection. Fjeldstad (2003) mentions many reasons to look at actual revenues rather than projected revenues. Huge gaps between projected and actual revenues collections are due to:

1) Poor administrative capacity to assess the revenue base
2.) Poor administrative capacity to enforce the payment of taxes
3.) Explicit and intentional tax evasion and resistance from tax payers
4.) Corruption, including embezzlement of revenues
5.) External pressure on the local finance department to provide optimistic projections
6.) Political pressure on the local tax administration to relax on revenue collection

Initially I only had revenue and expenditure projections for the financial year 2005/06. When using these I found there was a connection between tax-dependence and government consumption, own source revenues significantly impacted on public service expenditure and accounted, on average, for 17.0% of Local government revenues. Using actual collections for three quarters + 1 quarter projected I found the more realistic local revenue share of 5.60% which was in line with the preceding year.58

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57 Limitations: In 2004 the financial year changed. The actual revenues/expenditures financial year was moved from January-December to July-June, 2004/2005. The budgets for 2004 were from January – December.
58 The systematic reporting of local government finance data was initiated by Presidents Office and Regional Administration Unit (PMO-RALG) during FY 2005/06, and although the data were scrutinized by PMO-RALG, it is apparent that inconsistencies exist in the financial data submitted by councils. Improving the data reporting and data scrutiny processes will require consistent and coordinated efforts.
5.3 Main findings from regression analysis

Table 5.5 Estimates of how sources of revenue influence expenditure (in million TShs)

<table>
<thead>
<tr>
<th>All local governments Fixed effects model (cluster)</th>
<th>Nr of obs. All local governments</th>
<th>Total expenditure</th>
<th>Share of own source revenue</th>
<th>Share of development grants</th>
<th>Share of Inter governmental transfers</th>
<th>R-squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public services</td>
<td>525</td>
<td>0.19** (0.09)</td>
<td>72.07 (1752.32)</td>
<td>2071.01** (773.01)</td>
<td>863.68*** (249.91)</td>
<td>0.66</td>
</tr>
<tr>
<td>Public services gap Budget-actuals</td>
<td>444</td>
<td>-0.03 (0.13)</td>
<td>3084.14 (1838.41)</td>
<td>-680.42 (1097.54)</td>
<td>914.48* (477.71)</td>
<td>0.41</td>
</tr>
<tr>
<td>Other charges expenditure</td>
<td>529</td>
<td>0.24** (0.09)</td>
<td>-1553.72 (2318.49)</td>
<td>-1333.72*** (497.97)</td>
<td>59.93 (205.21)</td>
<td>0.83</td>
</tr>
<tr>
<td>Other charges budget – actuals</td>
<td>516</td>
<td>-0.28** (0.12)</td>
<td>1459.12 (2242.04)</td>
<td>1547.68*** (544.26)</td>
<td>781.54*** (233.99)</td>
<td>0.78</td>
</tr>
<tr>
<td>Personal emoluments Expenditure</td>
<td>529</td>
<td>0.45*** (0.09)</td>
<td>1066.52 (902.71)</td>
<td>26.92 (546.28)</td>
<td>-820.93*** (194.58)</td>
<td>0.91</td>
</tr>
<tr>
<td>Personal emoluments Expenditure budgets- actuals</td>
<td>509</td>
<td>-0.25*** (0.05)</td>
<td>-1428.75 (1230.29)</td>
<td>499.85 (331.70)</td>
<td>279.45 (211.85)</td>
<td>0.52</td>
</tr>
<tr>
<td>Administration costs</td>
<td>529</td>
<td>0.05*** (0.02)</td>
<td>644.83** (317.56)</td>
<td>-6.77 (150.16)</td>
<td>-142.19 (947.40)</td>
<td>0.83</td>
</tr>
<tr>
<td>Osr (budget- actual tax collection)</td>
<td>522</td>
<td>-0.06*** (0.01)</td>
<td>-1689.11*** (571.37)</td>
<td>49.52 (152.86)</td>
<td>1620.61 (1478.41)</td>
<td>0.61</td>
</tr>
</tbody>
</table>

Cluster robust standard errors in parentheses : * significant at 10%; ** significant at 5%; *** significant at 1%

The results confirm that there is no explicit exchange of taxes for services, one of the observable characteristics of contractual taxation. Own source revenues are not exchanged for anything much except administrative costs. A marginal increase in the share of non-governmental transfers for a local government will lead to an increase in expenditure on public services, and a relative decrease in expenditure on other charges. A marginal increase in the share of inter-governmental transfers will lead to a decrease in personal emoluments expenditure but less significant change in inter-governmental transfers. The results confirm Fjeldstad’s findings in 2001 that the reciprocity element in taxation seems to be absent in local governments of Tanzania.

According to the fiscal theory low tax-dependence leads to less responsive and accountable government. 60 There are several challenges of establishing links between local revenues and

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59 After fixed effects I use the saved results e(rss) and e(tss) to find the R2 which is comparable to that of ordinary least squares (OLS). The R-squared measures the proportion of variation explained by the model.
local services. LGFF (2005) mentions many Tanzanians have come to expect free public services from the public sector as a result of the country’s socialist past. Fjeldstad (2001) argues that the links between revenues and services have never been established due to the political culture of clientelism.

The most severe problem is the system of financing local governments. Approximately 90% of local governments funding comes from intergovernmental transfers. There are often conditions attached to these transfers and they are mostly to be used in financing other charges, personal emoluments and public services. Local governments are encouraged to spend their collected taxes on their own administration costs. One might argue that local governments have no choice but to use a significant share of locally collected revenues for local administration and administrative overhead. Own source revenues are ‘crowded out’ by foreign aid (non-governmental transfers including LGCDG) that are mostly earmarked to go to public services. An alternative explanation is that local governments ‘free ride’ on donor service provision and spend their income on themselves instead of services to local communities.

**Consequences of no social contract**

Various studies that have looked at local spending from own sources conclude that local authorities (both at district as well as at village level) typically spend 50-60 percent of own source revenues on local administration. This provides a tremendous disincentive for local residents to pay local taxes (LGFF; 2005). Why should people pay taxes when these are used for consumption rather than the provision of public goods? To the extent that taxes are consumed by government officials and not turned in to services, they constitute _tribute_ rather than taxes _strictu sensu_. Widespread tax evasion is, in fact, a rational strategy on the part of the taxpayer who does not receive commensurate service in exchange (Cooksey, 2005).

The consequences of no social contract between the citizens and the state are many and their implications for governance bad. Local government officials become answerable to donors and central government rather than citizens taxpayers. Receiving most of their revenue from foreign aid and central government transfers, local governments are relatively independent of their citizen-taxpayers for revenue. Thus it does not have to cultivate societal compliance and remove worker discontent of taxes. With low tax compliance local governments are more likely to use coercion in tax collection and are more likely to extort/ embezzle public funds. Corruption, waste and mismanagement in the use of taxes make tax evasion and avoidance more likely. Consequently gaps between projected collections and actual collections are higher.

**Linking own source revenues to public services**

The Local Government Fiscal Framework (2005) advises that own source revenues should be used to the maximum extent possible for public services (and infrastructure) that are purely local in nature, in response to needs and demands from the local community. The ‘poor-value for money received by local residents has contributed to extremely high rates of local tax evasion’ It is advised that local governments should be able to fund the core cost of

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60 About 87% of the councils generated less than 10% of their total revenues between 1st July, 2005 and 31st March, 2006. The total transfers continue to constitute 92% of the councils’ total revenue.
their administrative apparatus from a transfer, this would allow local authorities to apply 100% of own source revenues directly to visible and tangible local service provision.

However, public services have become too costly to maintain with own source revenues should they replace today's donor funding. Since revenue creation has not risen in tact with the responsibilities of the state, services have become too costly for taxes to finance them. If taxes were to replace other sources of funding public services would deteriorate and could even have impacts on the macro-economy (see LGFF, 2005).
Rural and urban local governments

Urban councils spend relatively more on other charges and personal emoluments but less on public services than rural councils. The fiscal social contract proposition would argue that the more a local government receives in taxes, own source revenue, the more it would spend money on citizen friendly policies. We could also assume that citizens are less keen on paying taxes used for administration costs and other charges. A marginal increase in own source revenues matter little for expected expenditure in rural local governments. This result backs up the hypothesis of coercive tax collection that tax collection are not exchanged for anything much (Moore, 2007).

Public services

We already know that development expenditures, particular in rural areas, are at the mercy of donors. As expected a marginal increase in development grants will lead to an expected increase in development expenditure in rural areas. Even though own source revenues are minimal they may be crowded out by the earmarking of these development grants. In Urban areas there are no significant impacts of marginal changes in sources of revenue on expected public expenditure. In urban areas, own source revenue is larger and more of it is spent on public services, but there is no explicit exchange of tax revenues for services as contractual taxation would predict.

Administration costs and fiscal deficit

Total expenditure on administration is significantly higher in urban areas. A reason for this is that urban areas have more own source revenues and are given a larger administration grant. The high level of administration transfers from own source revenue may also contribute to the own source revenue playing a ‘constructive role’ in fiscal discipline in urban areas. However, since taxes are not exchanged for anything much it is more likely that the amount of collected in own source revenues are collected coercively.

Rural and urban areas differ with regards to expenditure on administration costs and the fiscal deficit. Both cases indicate that taxes are spent more efficiently in urban councils and that the element of fiscal exchange is stronger.

- First, unlike in rural local governments, a marginal increase in the share of own source revenues leads to an expected reduction in administrative costs. Following the social contract proposition more own source revenues could lead to more fiscal discipline.
- Second, unlike in rural local governments, a marginal increase in the share of own source revenues leads to an expected reduction in the revenue gap. In rural areas increases in shares of aid and intergovernmental transfers lead to larger discrepancies between budgeted and collected taxes.
Table 5.6 Estimates of how sources of revenue influence expenditure in urban and rural local governments

<table>
<thead>
<tr>
<th>Local Governments</th>
<th>Fixed effects model</th>
<th>Development Expenditure</th>
<th>Other charges expenditure</th>
<th>Personal emoluments Expenditure</th>
<th>Administration costs</th>
<th>Own source revenue budgets-actuals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Urban</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nr of obs.</td>
<td>104</td>
<td>104</td>
<td>104</td>
<td>104</td>
<td>103</td>
<td></td>
</tr>
<tr>
<td>Total expenditure</td>
<td>0.06***</td>
<td>0.37***</td>
<td>0.56***</td>
<td>0.06*</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>(0.06)</td>
<td>(0.05)</td>
<td>(0.10)</td>
<td>(0.04)</td>
<td>(0.30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Own source revenue</td>
<td>-1078.84 (1498.12)</td>
<td>-43.35 (1843.72)</td>
<td>1147.65 (1424.64)</td>
<td>-1806.16***</td>
<td>-6489.27***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(502.40)</td>
<td>(1537.39)</td>
<td></td>
</tr>
<tr>
<td>Non-governmental Transfers</td>
<td>609.20 (744.57)</td>
<td>2149.18 (1721.01)</td>
<td>-2243.10 (1710.17)</td>
<td>1304.30***</td>
<td>-409.02 (1030.08)</td>
<td></td>
</tr>
<tr>
<td>Inter-governmental Transfers</td>
<td>114.20 (188.23)</td>
<td>-512.35 (306.20)</td>
<td>412.00 (305.36)</td>
<td>-374.68***</td>
<td>-1079.73***</td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>0.72</td>
<td>0.95</td>
<td>0.95</td>
<td>0.90</td>
<td>0.52</td>
<td></td>
</tr>
<tr>
<td><strong>Rural</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nr of obs.</td>
<td>422</td>
<td>426</td>
<td>426</td>
<td>426</td>
<td>420</td>
<td></td>
</tr>
<tr>
<td>Total expenditure</td>
<td>0.23***</td>
<td>0.22***</td>
<td>0.39***</td>
<td>0.03**</td>
<td>-0.03*</td>
<td></td>
</tr>
<tr>
<td>(0.06)</td>
<td>(0.06)</td>
<td>(0.06)</td>
<td>(0.01)</td>
<td>(0.02)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Own source revenue</td>
<td>858.01 (1492.92)</td>
<td>776.66 (2632.35)</td>
<td>-2194.48 (1392.05)</td>
<td>-92.46 (787.52)</td>
<td>-166.39 (764.55)</td>
<td></td>
</tr>
<tr>
<td>Non-Governmental Transfers</td>
<td>1272.54**</td>
<td>-691.76***</td>
<td>-34.27 (284.09)</td>
<td>27.60 (89.32)</td>
<td>280.19** (127.91)</td>
<td></td>
</tr>
<tr>
<td>Inter-governmental Transfers</td>
<td>-198.61 (1466.13)</td>
<td>1466.96 (1411.64)</td>
<td>-2962.92** (1153.73)</td>
<td>-823.41 (703.05)</td>
<td>1497.19* (823.59)</td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>0.68</td>
<td>0.66</td>
<td>0.89</td>
<td>0.73</td>
<td>0.79</td>
<td></td>
</tr>
</tbody>
</table>

Cluster robust standard errors in parentheses : * significant at 10%; ** significant at 5%; *** significant at 1%

**F-test - Urban rural dimension**

Ho= coefficients are the same for the subsets of rural and urban local governments, controlling for time periods.

The F-test confirms that the urban/rural dimension is important in explaining total recurrent expenditure, development expenditure and the fiscal deficit. The F-test gives 6.99, 7.81 and 7.13 respectively. The critical value for the F-statistic F(10,502) at the confidence level $\alpha=0.01$ is 2.32. It is reasonable to examine expenditures and fiscal deficits by splitting up the sample into rural and urban local governments.
Disadvantages and advantaged local governments

Advantaged local governments are urban and more developed rural governments (0,1,2 on disadvantaged index). Advantaged local governments score better on almost all poverty and human development indicators (see appendix). Disadvantaged local governments are mainly peripheral and rural local governments (3,4,5,6). In general disadvantaged councils spend more on development expenditure and less on recurrent expenditure than advantaged councils in line with pro-poor policies. When government designs budgets they take into account how many hospitals and schools need money for maintenance. The buildings are also employed by teachers and health workers that need to be paid. In disadvantaged areas there are fewer schools and hospitals and thus a lesser share is transferred to rural remote areas. Thus, total expenditure is higher in more developed areas.

The expenditures of disadvantaged areas resemble those of the rural local governments. The expenditures of advantaged areas resemble those of urban local governments. In disadvantaged areas marginal increases in any source of revenue does not significantly matter for any particular expenditure, with the exception of the explicit link between development grants and expenditure on public services. As in rural local governments, development transfers lead to a larger gap between projected and collected revenue, indicating that development grants may substitute for tax collection in these areas. This may be due to lack of capacities to administrate tax collection but also to lack of incentives and corruption. In advantages local governments a marginal increase in the share of taxes leads to the expected reduction in the difference between projected and collected taxes.

F-test- Advantaged /disadvantaged local governments dimension

Ho= coefficients are the same for advantaged and disadvantaged local governments.

The disadvantaged index is a summary of several indexes that measure staffing problems in local governments. The coefficients when examining the fiscal deficit are not significantly different when looking at good and bad administrations. The F value is 0.157 and I fail to reject the null hypothesis at $\alpha =0.05$. When I use total recurrent expenditure and total development expenditure as the dependent variable the F-test becomes 2.87 and 5.24, respectively. The critical value for the F(10,509) statistic at the significance level $\alpha=0.01$ is 2.32. Although examining tax collection does not vary significantly for advantaged and disadvantaged local government, coefficients are significantly different when examining expenditure. Appendix D and E show how sources of revenue influence the difference in budgeted and actual expenditures of disadvantaged, advantaged, urban and rural local governments.
Table 5.7 Estimates of how sources of revenue influence expenditure in advantaged and disadvantaged local government authorities

<table>
<thead>
<tr>
<th>Local Governments</th>
<th>Fixed effects model</th>
<th>Development Expenditure</th>
<th>Other charges expenditure</th>
<th>P.E. Expenditure</th>
<th>Administration costs</th>
<th>Own source revenue budgets-actuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disadvantaged</td>
<td>Nr of obs.</td>
<td>226</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>226</td>
</tr>
<tr>
<td></td>
<td>Total expenditure</td>
<td>0.24***</td>
<td>0.23**</td>
<td>0.28***</td>
<td>0.02</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td>(0.10)</td>
<td>(0.05)</td>
<td>(0.02)</td>
<td>(0.03)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Own source revenue</td>
<td>1005.53</td>
<td>-678.92</td>
<td>-3841.67</td>
<td>1499.14</td>
<td>1455.82</td>
</tr>
<tr>
<td></td>
<td>(6575.04)</td>
<td>(7758.11)</td>
<td>(3759.38)</td>
<td>(1453.08)</td>
<td>(1947.98)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-governmental transfers</td>
<td>1345.86***</td>
<td>-503.57</td>
<td>-220.97</td>
<td>84.62</td>
<td>323.38*</td>
</tr>
<tr>
<td></td>
<td>(495.41)</td>
<td>(323.59)</td>
<td>(356.52)</td>
<td>(114.95)</td>
<td>(183.35)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inter-governmental transfers</td>
<td>1746.93</td>
<td>1715.03</td>
<td>-3582.88</td>
<td>534.96</td>
<td>3407.48</td>
</tr>
<tr>
<td></td>
<td>(6188.73)</td>
<td>(0.31)</td>
<td>(3927.72)</td>
<td>(1432.88)</td>
<td>(2255.16)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R-squared</td>
<td>0.69</td>
<td>0.70</td>
<td>0.90</td>
<td>0.70</td>
<td>0.78</td>
</tr>
<tr>
<td>Advantaged</td>
<td>Nr of obs.</td>
<td>270</td>
<td>270</td>
<td>270</td>
<td>270</td>
<td>267</td>
</tr>
<tr>
<td></td>
<td>Total expenditure</td>
<td>0.12</td>
<td>0.31***</td>
<td>0.56***</td>
<td>0.06**</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>(0.07)</td>
<td>(0.04)</td>
<td>(0.08)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Own source revenue</td>
<td>209.41</td>
<td>-369.56</td>
<td>716.68</td>
<td>-1841.46</td>
<td>-4768.35</td>
</tr>
<tr>
<td></td>
<td>(1257.26)</td>
<td>(1825.84)</td>
<td>(1361.80)</td>
<td>(440.93)</td>
<td>(1608.12)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-Governmental Transfers</td>
<td>955.33*</td>
<td>-338.11</td>
<td>-865.34</td>
<td>91.83</td>
<td>-127.27</td>
</tr>
<tr>
<td></td>
<td>(544.25)</td>
<td>(565.42)</td>
<td>(544.48)</td>
<td>(229.50)</td>
<td>(333.91)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inter-governmental transfers</td>
<td>-131.17</td>
<td>-275.95</td>
<td>742.48</td>
<td>-469.62</td>
<td>-396.85</td>
</tr>
<tr>
<td></td>
<td>(423.91)</td>
<td>(1199.12)</td>
<td>(835.96)</td>
<td>(289.84)</td>
<td>(768.68)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R-squared</td>
<td>0.70</td>
<td>0.88</td>
<td>0.93</td>
<td>0.86</td>
<td>0.56</td>
</tr>
</tbody>
</table>

Cluster robust standard errors in parentheses: * significant at 10%; ** significant at 5%; *** significant at 1%

5.4 Robustness of the model
Incomplete Panels

A few variables were missing making the panel model unbalanced. However, the missing variables are random and do not lead to a selection bias. The information is approved by the government and there is no evidence of deterministic missing data. There is no correlation between the selection rule and the data and thus no selection bias.

Although actual revenues rather than budgeted revenues have been used, the data still has some weaknesses. Central governments monitoring of Local government can be very weak. For instance, actual revenues may sometimes be put in line with the local government budgets. Poverty and human development variables such as enrolment rates are self-reported. Before the formulaic approach was initiated local governments had incentives to report good development standards since transfers were determined by the level of public services already provided.

Measurement error often leads to ‘attenuation’ of signal to noise ratio in panels and biases coefficients towards zero. It can have an adverse effect on panel models and it is no longer obvious that the panel estimator is to be preferred to the cross-section estimator. Measurement error in the dependent variable results in larger standard errors of the coefficients. I have in some cases used robust regressions that reduce the weight put on influential observations that might be caused by measurement error. I receive more significant results but the conclusions remain the same.

Misspecification tests

Heteroscedasticity

The Breusch-Pagan tests for random effects indicate the presence of multiplicative heteroscedasticity in most of the models. If heteroscedasticity exists using Generalized Least squares (GLS) will be more efficient than the ordinary pooled OLS. However, OLS will still be unbiased and consistent.

Autocorrelation

With a small T, testing for autocorrelation can be difficult. When serially uncorrelated, fixed effects is more efficient and its standard errors are valid. On the other hand, when the idiosyncratic error terms follow a random walk, first differencing is more efficient than fixed effects. I find that there is some correlation, but not quite a random walk. Thus the efficiencies cannot be easily compared.

I use the xtserial command that tests the null hypothesis of no first-order autocorrelation in the panel data. This is based on a test suggested by Woolridge (2002). A significant test statistic indicates the presence of serial correlation. When looking at government expenditures and gaps between actual and budgeted expenditure, generally, there is not enough evidence to support the hypothesis that serial autocorrelation (AR-1) exists.

When looking at the gap between collected and budgeted own source revenues first-order autocorrelation is detected more frequently. I still keep to the fixed effects model because it still yields consistent estimates with clustered standard errors. I have compared fixed- and
random-effects linear models with an AR(1) disturbance. The drawback of this approach is that clustering the standard errors is not possible in these models and the standard errors are thus not correct.

**Unobserved Individual and time heterogeneity**

The unobserved effects may have a time and regional dimension. When time and individual heterogeneity is present the random effects model will produce inconsistent estimates. However, the additional control variables account for a significant proportion of the unobservable heterogeneity which I can use for F-tests for unobservable heterogeneity. I split the full model into nested models according to time and individual effects (urban/rural/advantaged/disadvantaged local governments).

This variation of $\alpha$ is called individual (unobserved) heterogeneity. These are unobserved local government (individual) characteristics such as ability and experience that are likely to be correlated with at least some explanatory variables (for instance, expenditure on administration).

It is reasonable to assume that some unobserved characteristics are correlated to some of the time-invariant explanatory variables. This is called time (unobserved) heterogeneity. This could for instance be an oil shock, or more relevant for this thesis, the tax reform. The tax reform of 2003/2004 which lead to the abolishment of several taxes had severe impacts on local government finances.61

**F-test- Before and after the tax reform**

Ho= coefficients are the same for the two subsets before and after the tax reform
Ha= coefficients are not the same for the two subsets before and after the tax reform

I examine the effect of the tax reform by conducting F-tests for structural change. I am interested in finding out whether there is a structural change in the coefficients for shares of revenues before and after the tax reform, using development and recurrent expenditure as dependent variables. Using an F-test I split up the sample into two sub-samples for the periods before (<2005) and after the tax reform (>2004). Using total development expenditure, total recurrent expenditure and the fiscal deficit as dependent variables I received the F-statistic 2.94, 2.587 and 17.24, respectively. The critical values for the F-statistic, $F(6, 513)$ were 2.10 at $\alpha=0.05$ and 2.80 at $\alpha=0.01$. The F-test rejects the null hypothesis that the coefficients are the same before and after the tax reform. The tax reform did not only affect own source revenue collections but also had a significant impact on the coefficients when examining expenditure of local governments. It therefore makes sense to introduce year dummies in the model.

61 One might also argue that poverty and human development standards have changed slightly in the period from 2002-2006. Percents of households with mobile phones, flush toilets may have changed somewhat. At the same time, the relative differences in development standards between districts are the same. Geographic variables (forests, mines etc.) that may be influenced by climate change, have a relatively slower rate of change.
I have used two different methods to test the adequacy of the random effects model, a ‘poolability’ test and a robust Hausman- like Wald test. Both tests confirm that I should stick to the two-way fixed effects model.

‘Poolability’ test – OLS vs Fixed effects model

Ho: Pooled OLS regression (restricted model)
Ha: Two-way fixed effects model (fully unrestricted model)

I use four different random effects models and find their corresponding F-statistic. I use a random effects model with no dummies, one with regional dummies, one with time dummies and one with time and regional dummies. Although the random effects model uses less degrees of freedom and is thus more efficient, the random effects model errors correlated with the explanatory variables make the estimates inconsistent.

I compare the F-statistics of pooled regression using the F-statistic from the fully unrestricted 2-way fixed effects model as the critical value. Since it completely removes both time and individual heterogeneity it is my benchmark model. If the F-statistic is greater than the critical value I can reject the hypothesis that there is no individual heterogeneity, time heterogeneity or both. If the control variables are sufficient to capture the unobservable heterogeneity I can use the more efficient random effects model. From table 5.9 below the F-tests show that I have both time and individual effects and should therefore stick to the fixed effects model with time dummies. If the F-statistic had been smaller than the critical value in all the above cases I could also have used an ordinary pooled regression. However, a pooled regression is also rejected by the Breusch Pagan test (var(u)=0) for random effects.

Table 5.8 F-statistics from the poolability test

<table>
<thead>
<tr>
<th>Model (OLS regression)</th>
<th>F-statistics</th>
<th>F-critical value (two-way fixed effects model) α= 0.01</th>
<th>Associated P-values</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>No dummies</td>
<td>2.323***</td>
<td>F-value= 1.40</td>
<td>&lt;0.01</td>
<td>Reject</td>
</tr>
<tr>
<td>Regional dummies</td>
<td>1.87***</td>
<td>F-value= 1.40</td>
<td>&lt;0.01</td>
<td>Reject</td>
</tr>
<tr>
<td>Time dummies</td>
<td>1.89***</td>
<td>F-value= 1.40</td>
<td>&lt;0.01</td>
<td>Reject</td>
</tr>
<tr>
<td>Regional + time dummies</td>
<td>1.47***</td>
<td>F-value= 1.40</td>
<td>&lt;0.01</td>
<td>Reject</td>
</tr>
</tbody>
</table>

* significant at 10%; ** significant at 5%; *** significant at 1%.

As expected the pooled regression with regional and time dummies comes closest to capturing the unobserved heterogeneity. Thus a two-way random effects model is expected to perform the best against the two-way fixed effects model. This is tested using a Robust Wald test.
Robust Wald test – Random effects vs Fixed effects model

The ‘Poolability’ test and the Breusch Pagan test confirm that there are random effects in the data. I should therefore test the random-effects model with the fixed-effects model, and not the pooled regression OLS with the fixed effects model as I did in the poolability test. In model selection the poolability test above can be used but the appropriateness of the random effects model is usually tested by comparing with the fixed effects model using the Hausman test. If the Hausman statistic fails to reject, the typical response is to choose the random effects estimates. Unfortunately, if the random effects estimates are chosen there might still be correlation with the unobserved variables.

The Hausman test assumes that two strong theoretical conditions to hold. Firstly, one should obtain an estimator that is consistent whether or not the hypothesis is true. Secondly, one should obtain an estimator that is efficient (and consistent) under the hypothesis that you are testing, but inconsistent otherwise.

Since I use clustered robust standard errors the random effects estimator is not efficient. The fixed model is not efficient since it uses an inefficient amount of degrees of freedom in its calculation, in the presence of serial autocorrelation and heteroscedasticity, but is consistent. Thus, the second assumption does not hold. I instead use a robust Hausman-like Wald test that extends to the cases of heteroscedastic and/ or clustered errors of the random effects model. Under conditional homoscedasticity, the Wald test statistic is asymptotically equivalent to the usual Hausman fixed-vs.-random effects test. Unlike the ordinary Hausman test, xtovrid extends straightforwardly to inefficient estimators (heteroscedastic- and cluster-robust versions) and always generates a nonnegative test statistic. The random effect model does not allow the regressors to be arbitrary correlated with the group-specific error such as the fixed effects model. These additional restrictions on the random effects errors are over-identifying restrictions.

Ho: Excluded variables are uncorrelated with the error term and correctly excluded
Ha: Excluded variables are correlated with the error term

Using a robust Wald test for over-identifying restrictions I can reject the null hypothesis that the excluded variables are uncorrelated with the error term and correctly excluded from the estimated equation. Most random effects models pass the Wald test when explaining personal emoluments and other charges, but less frequently in explaining public service expenditure and administration costs. When trying to explain the gap in revenue collection (projected-actual collection) the GLS framework used in the random effects estimation degenerates into OLS. Thus, the random effects cannot confirm the results from the fixed effects unless the dependent variable is logarithmically transformed. However, the transformation generates around 200 new variables which biases this estimate. Since I am

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62 A test of fixed vs. random effects can also be seen as a test of over-identifying restrictions. The fixed effects estimator uses the orthogonality conditions that the regressors are uncorrelated with the idiosyncratic error e_it, i.e., E(X_it*e_it)=0. The random effects estimator uses the additional orthogonality conditions that the regressors are uncorrelated with the group-specific error u_i (the "random effect"), i.e., E(X_it*u_i)=0. These additional orthogonality conditions are over-identifying restrictions. The test is implemented by xtovrid using the artificial regression approach described by Arellano (1993) and Wooldridge (2002, pp. 290-91), in which a random effects equation is re-estimated augmented with additional variables consisting of the original regressors transformed into deviations-from-mean form.
comparing with the fully unrestricted 2-way fixed effects model year and regional dummies are used in the random effects model. For the full sample the fraction of variance explained by ‘random/between effects’ and not ‘within effects’ (which are the only ones used in fixed effects estimation) ranges between 0.02-0.41, depending on the expenditure item.

There is not one model that explains each expenditure item best. Selection of the pool of variables which includes poverty and human development variables, geographic information variables and performance indicators are conducted by stepwise procedures after any collinearity is removed. In the presence of collinearity the GLS framework degenerates into OLS framework used in the fixed effects approach. In this case random effects and fixed effects are identical and the Hausman test would misleadingly favor the random effects model.

6. Concluding remarks

In the beginning of this thesis I addressed the question: Given that needy or greedy politicians and government administrators may derail or override policies that benefit the poor, how can one prevent such good policies from being watered down or not being implemented at all? Many argue that capacities continue to be a limiting factor for local governments. Another view is that Tanzania has never really lacked implementing capability. Trained and capable persons have been available for decades. The truth probably lies somewhere in between. What is certain, however, is that Tanzania has had very good social policies and plans which, if vigorously implemented, would have reduced rural and semi-urban poverty considerably by now. As in many other developing countries, what the country has mostly lacked is the necessary commitment and selflessness needed to put the capabilities and the policies into consistent practice.

In this thesis I have argued that the causal arrow of disciplining governing elites is more likely to go from government to civic engagement rather than vice-versa. Fiscal theories of governance are a rethinking of governance that takes the cynical view that political incentives are economic. This thesis has argued how one can fight corruption by aligning political incentives with those of the citizen taxpayers. Because of the space limitation it is beyond the scope of this thesis to discuss how local governments should generate more income through taxes from their own citizens. However, I will argue that it is necessary to look beyond neo-classical economics and take an evolutionary view of how today’s modern states evolved--as this thesis has done.

This thesis confirms that from 2002-2006 the full sample of local governments in Tanzania did not provide an explicit exchange of tax revenues for public services as contractual taxation would predict. This is also the case in the sub-samples. The system of financing local governments is not efficient from a fiscal theory point of view. The earmarking of development grants to public services may, contrary to its intentions, obstruct a visible link between the taxes paid by citizens and the services they are expected to receive in return. Own source revenues are not exchanged for anything much except administration costs, for which citizens’ willingness to pay taxes is extremely low. Without a social contract one instead has ‘negative reciprocity’ between local governments and their citizens. This has severe impacts on governance outcomes.

When looking at the sub-samples of local governments this study finds that a marginal increase in non-governmental transfers (a proxy for foreign aid) leads to a larger gap
between budgeted and actual taxes collected in rural and disadvantaged local governments. The analysis of financial data indicates that foreign aid and central government grants substitutes for tax collection in rural and disadvantaged areas.

**References/Literature**


Bardhan, P. & Mookherjee, D. (2002): “Corruption and Decentralization of Infrastructure in Developing Countries”, mimeo, Univ. of California, Berkeley, and Boston University.


Brautigam, Deborah; Fjeldstad Odd-Helge; Moore, Mick (2007): “Capacity and Consent: Taxation and State Building in Developing Countries” (Chapter 1), Cambridge University Press (forthcoming).


Moore, Mick (2007): "How Does Taxation Affect the Quality of Governance?”, Institute of Development Studies (IDS) working paper


Schumpeter, Joseph (1918): The Crisis of the Tax State.


Sundet, Geir (2005): “The state of financial accountability in local government in Tanzania: Do we know where money is going?” Paper presented at the REPOA tenth annual research workshop, Kanduchi Beach Hotel, April 7-8.


Websites

http://www.cmi.no
www.globalcorruptionreport.org
www.stata.com
http://www.ids.ac.uk/futurestate/pdfs/PB34.pdf
www.repoa.or.tz
Appendices

Appendix A - Facts about Tanzania

Tanzania is also one of the poorest countries in the world. The economy depends heavily on agriculture, which accounts for almost half of GDP (48.2% in 2004), provides 85% of exports, and employs 80% of the work force. Subsistence farming accounted for about 40% of total agricultural output in the same year. The leading visible export is gold, followed by cashew nuts, coffee beans and raw cotton. Gold contributed about 70% of export revenue in 2004, traditional exports – coffee, cotton, tea and cashew nuts – remain depressed.

Topography and climatic conditions limit cultivated crops to only 4% of the land area. Industry traditionally featured the processing of agricultural products and light consumer goods. The World Bank, the International Monetary Fund, and bilateral donors have provided funds to rehabilitate Tanzania's out-of-date economic infrastructure and to alleviate poverty. Long-term growth through 2005 featured a pickup in industrial production and a substantial increase in output of minerals, led by gold. Recent banking reforms have helped increase private-sector growth and investment. Continued donor assistance and solid macroeconomic policies supported real GDP growth of more than 6% in 2005.

<table>
<thead>
<tr>
<th>GDP:</th>
<th>$27.07 billion (2005 est.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP growth rate:</td>
<td>6% in 2005</td>
</tr>
<tr>
<td>GDP per capita:</td>
<td>$700</td>
</tr>
<tr>
<td>GDP composition by sector:</td>
<td>agriculture: 43.2% industry: 17.2% services: 39.6%</td>
</tr>
<tr>
<td>Inflation rate:</td>
<td>4.3%</td>
</tr>
<tr>
<td>Labor force:</td>
<td>19.22 million</td>
</tr>
<tr>
<td>Labor force - by occupation:</td>
<td>Agriculture 80%, industry and services 20%</td>
</tr>
<tr>
<td>Budget:</td>
<td>revenues: $2.235 billion expenditures: $2.669 billion</td>
</tr>
<tr>
<td>Industries:</td>
<td>agricultural processing (sugar, beer, cigarettes, sisal twine), diamond and gold mining, oil refining, shoes, cement, textiles, wood products, fertilizer, salt</td>
</tr>
<tr>
<td>Agriculture:</td>
<td>coffee, sisal, tea, cotton, pyrethrum (insecticide made from chrysanthemums), cashew nuts, tobacco, cloves, corn, wheat, cassava (tapioca), bananas, fruits, vegetables; cattle, sheep, goats</td>
</tr>
<tr>
<td>Exports:</td>
<td>gold, coffee, cashew nuts, manufactures, cotton</td>
</tr>
</tbody>
</table>

Appendix B- Control and Structural variables

1. Measures of local expenditure

1.1 Poverty indicators

- District poverty line (percent falling below poverty line ‘basic needs’)
  - Per cent of the population below the poverty line, 2000/01
  - Number of poor 2000/01, per km2
  - Poverty gap, 2000/01
  - Gini coefficient 2000/01

Household assets is an indirect method of measuring poverty.

- Per cent of households owning a radio, 2002
- Per cent of households owning a telephone, 2002
- Per cent of households owning a bicycle, 2002
- Per cent of households having electricity, 2002
- Per cent of households having earth floor, 2002
- Per cent of households having poor quality material for walls, 2002
- Per cent of households having poor quality roofing, 2002
- Number of household members per room, 2002
- Per cent of rural households using piped or protected water source, 2002
- Per cent of households using piped or protected water source, 2002
- Per cent of households using flush toilet or ventilated improved pit latrine, 2002

1.2 Other poverty indicators
Child labor is strongly related to poverty.

- Per cent of children aged 7 to 13 who are economically active, 2002
- Per cent of children aged 7 to 13 who are economically active and not attending school, 2002

1.3 Level of health is also an indicator of poverty.

- Per cent of population with a disability, 2002
- Infant mortality rate(per 1,000 live births), 2002
- Under-five mortality rate(per 1,000 live births), 2002
- Per cent of children under 18 who are orphaned – mother or father has died, or both have died, 2002
- Per cent of children under 18 whose mother has died, 2002
- Per cent of children under 18 whose father has died, 2002

2. Scale economies in local government allocations

- Total population 2002 (for every district)

Included to determine whether scale economies are considered as a factor in allocating central-local resources among local governments. Would expect that local governments with larger populations receive lower per capita allocations.

- Population density (local governments with lower population density need more facilities because population is distributed further apart)
- Population, 2002, per km²

The supposedly higher expenditure needs of rural areas, less densely populated districts do not receive greater allocations.

- Total expenditure

3. Gender and other issues

- Per cent of females 15 and older who are literate, 2002
- Per cent of households which are female-headed, 2002
- Per cent of households headed by a person 60 or older, 2002

4. Expenditure responsibility measures

Since primary education and health are the most important local government expenditure responsibility, educational and health variables are included as an expenditure need measure.

- Population per health facility, 2002
- Number of health facilities per km²
- Per cent of people 15 and older who are literate, 2002
- Per cent of males 15 and older who are literate, 2002
- Per cent of females 15 and older who are literate, 2002
- Primary education net enrolment rate, 2004
- Primary education pupil-teacher ratio, 2004
- Primary education pupil-classroom ratio, 2004

5. Rural/urban variable

Urban areas are considerably wealthier and are generally much more developed. If local government finances were redistributive to equalize access to local public services, then there would exist an inverse relationship between urban status and local government allocations.

Even though this district information is from 2002, the relative differences between districts have not changed that much.


7. Geographic Information System (GIS) variables

I also used Geographic Information Systems (GIS) information to improve the predictive power of my model. This is publicly available geo-referenced data including geographic features, climatic conditions, economic variables and human settlement. To integrate the geo-referenced data with tabular data, the relevant variables are summarized at the district cluster level by calculating the mean or median value for each district.

The variables included are Cattle density per district, nr of mines per district, percent of forests per district, average elevation per district (constructed by calculating the median of the elevation data points with each district), average water holding capacity, soil fertility, roads, rain max & min, temp max & min. The average distances to tracks, primary and sector roads, and junctions were used to create road variables. Rainfall was calculated as the mean annual rainfall per district. Temperature was calculated as the mean annual temperature per district. Population density, number of people, area, water holding capacities, elevation variables, location of mines, cattle, forests, climatic variables, soil fertility and rain and temperature variables.

8. Audit opinions, sum questioned revenue/expenditure and staffing problems

In order to put the fiscal theory of governance into perspective I want to examine some of the other factors that are likely to influence the performance of the public sector for comparative purposes. Some of the factors influencing public sector performance are the political framework, transparency of government operations, citizen participation, the effectiveness of civil society and the capacity of sub-national governments. Unfortunately, very little relevant detailed local government information on these factors is available for the years studied in this thesis.
Audit opinions as proxy for quality of governance

Audit opinions from the report of the Controller and Auditor -General on Local Authority Accounts for all district 2002-2005 as a proxy for quality of governance was included.63

Sum questioned revenue: Revenue not accounted for, Revenue collected but not banked and missing revenue receipts books
Some questioned expenditure: Unauthorized expenditure, unvouchered expenditure, improperly vouchered expenditure and irregular payments and payments supported by proforma invoices.
Audit opinions: No opinion: 0, Adverse: 1, Qualified: 2, Clean: 3
This data has limitations and some researchers have mentioned a much too positive trend in ‘clean’ reports given.

Appendix C – Means, standard deviations and ranges of endogenous and exogenous variables in TShs (1000’s)

<table>
<thead>
<tr>
<th>Endogenous variables</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public services Expenditure</td>
<td>566</td>
<td>818.156</td>
<td>817.218</td>
<td>0</td>
<td>6.464.972</td>
</tr>
<tr>
<td>Administration costs</td>
<td>570</td>
<td>369.955</td>
<td>490.259</td>
<td>0</td>
<td>4.049.139</td>
</tr>
<tr>
<td>Personal emoluments</td>
<td>570</td>
<td>1.921.147</td>
<td>1.522.042</td>
<td>0</td>
<td>15.908.299</td>
</tr>
<tr>
<td>Personal emoluments gap</td>
<td>549</td>
<td>-267.191</td>
<td>1.038.624</td>
<td>-14.083.696</td>
<td>5.162.311</td>
</tr>
<tr>
<td>Other charges</td>
<td>569</td>
<td>1.196.127</td>
<td>1.192.122</td>
<td>0</td>
<td>8.836.907</td>
</tr>
<tr>
<td>Other charges gap</td>
<td>557</td>
<td>-386.411</td>
<td>1.291.539</td>
<td>-8.847.959</td>
<td>4.208.209</td>
</tr>
<tr>
<td>Own source revenue gap</td>
<td>561</td>
<td>228.793</td>
<td>528.301</td>
<td>-3.435.982</td>
<td>4.414.100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Main exogenous variables</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own source revenue</td>
<td>570</td>
<td>0.08117</td>
<td>0.0879</td>
<td>0.0022</td>
<td>0.6222</td>
</tr>
<tr>
<td>Development grants</td>
<td>570</td>
<td>0.13191</td>
<td>0.1108</td>
<td>0</td>
<td>0.6113</td>
</tr>
<tr>
<td>Inter governmental Transfers</td>
<td>563</td>
<td>0.9179</td>
<td>0.0897</td>
<td>0.378</td>
<td>1.0767</td>
</tr>
<tr>
<td>Log(Questioned expenditure)</td>
<td>537</td>
<td>10.621</td>
<td>1.399</td>
<td>6.685</td>
<td>15.164</td>
</tr>
<tr>
<td>Audit opinion</td>
<td>570</td>
<td>2.1736</td>
<td>0.718</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total expenditure</td>
<td>569</td>
<td>3.879.680</td>
<td>2.915.123</td>
<td>0</td>
<td>2.4e+07</td>
</tr>
</tbody>
</table>

63 The Controller and Auditor General (CAG) audits central and local government accounts and has permanent officers based in all important line ministries. Although donor aid has improved the promptness of reporting and extended coverage critics still claim the CAG’s annual audit reports are incomplete, published too late and widely ignored. No research has been carried out on the quality of CAG’s reports on the expenditure of local authorities. The independence of CAG is questioned.
Appendix D – how sources of revenue influence the difference in budgeted and actual expenditures of disadvantaged and advantaged local governments.

<table>
<thead>
<tr>
<th>Local Governments</th>
<th>Fixed effects model</th>
<th>Development Budget-actuals</th>
<th>Other charges budget –actuals</th>
<th>P.E. budgets- actuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disadvantaged</td>
<td>Nr of observations</td>
<td>206</td>
<td>226</td>
<td>225</td>
</tr>
<tr>
<td></td>
<td>Total expenditure</td>
<td>-0.09 (0.06)</td>
<td>-0.18** (0.08)</td>
<td>-0.16*** (-3.50)</td>
</tr>
<tr>
<td></td>
<td>Own source revenue</td>
<td>4914.20 (10000.00)</td>
<td>-637.97 (7258.64)</td>
<td>1042.53 (3031.76)</td>
</tr>
<tr>
<td></td>
<td>Non-governmental transfers</td>
<td>74.06 (694.32)</td>
<td>135.93 (504.23)</td>
<td>567.15 (362.02)</td>
</tr>
<tr>
<td></td>
<td>Inter-governmental transfers</td>
<td>9048.27 (9645.25)</td>
<td>423.63 (5709.52)</td>
<td>-501.82 (3483.61)</td>
</tr>
<tr>
<td></td>
<td>R-squared</td>
<td>0.34</td>
<td>0.67</td>
<td>0.50</td>
</tr>
<tr>
<td>Advantaged</td>
<td>Nr of observations</td>
<td>213</td>
<td>261</td>
<td>257</td>
</tr>
<tr>
<td></td>
<td>Total expenditure</td>
<td>-0.09 (0.08)</td>
<td>-0.33*** (0.05)</td>
<td>-0.50*** (0.11)</td>
</tr>
<tr>
<td></td>
<td>Own source revenue</td>
<td>-848.84 (1945.99)</td>
<td>-1131.82 (1736.13)</td>
<td>2192.88 (2370.15)</td>
</tr>
<tr>
<td></td>
<td>Non-Governmental Transfers</td>
<td>320.27 (877.014)</td>
<td>-69.59 (624.88)</td>
<td>9.18 (777.47)</td>
</tr>
<tr>
<td></td>
<td>Inter-governmental transfers</td>
<td>-349.61 (583.54)</td>
<td>365.12 (1400.43)</td>
<td>1620.05 (1002.31)</td>
</tr>
<tr>
<td></td>
<td>R-squared</td>
<td>0.49</td>
<td>0.82</td>
<td>0.59</td>
</tr>
</tbody>
</table>

Cluster robust standard errors in parentheses : * significant at 10%; ** significant at 5%; *** significant at 1%
Appendix E – how sources of revenue influence the difference in budgeted and actual expenditures of urban and rural local governments.

<table>
<thead>
<tr>
<th>Local Governments</th>
<th>Fixed effects model</th>
<th>Development Expenditure</th>
<th>Other charges budget – actuals</th>
<th>Personal emoluments budget- actuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>Nr of observations</td>
<td>86</td>
<td>1012</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>Total expenditure</td>
<td>-0.03</td>
<td>-0.39***</td>
<td>-0.54***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.06)</td>
<td>(0.06)</td>
<td>(0.10)</td>
</tr>
<tr>
<td></td>
<td>Own source revenue</td>
<td>-1609.19</td>
<td>-2513.58</td>
<td>-1100.47</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2283.97)</td>
<td>(1517.66)</td>
<td>(1735.81)</td>
</tr>
<tr>
<td></td>
<td>Non-governmental transfers</td>
<td>-705.41</td>
<td>-1555.31</td>
<td>2379.65</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1352.97)</td>
<td>(1182.76)</td>
<td>(1323.76)</td>
</tr>
<tr>
<td></td>
<td>Inter-governmental transfers</td>
<td>-897.26</td>
<td>-159.33</td>
<td>2813.79***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(546.04)</td>
<td>(240.44)</td>
<td>(273.58)</td>
</tr>
<tr>
<td></td>
<td>R-squared</td>
<td>0.51</td>
<td>0.87</td>
<td>0.67</td>
</tr>
<tr>
<td>Rural</td>
<td>Nr of observations</td>
<td>359</td>
<td>415</td>
<td>408</td>
</tr>
<tr>
<td></td>
<td>Total expenditure</td>
<td>-0.17**</td>
<td>-0.21**</td>
<td>-0.24***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.07)</td>
<td>(0.07)</td>
<td>(0.07)</td>
</tr>
<tr>
<td></td>
<td>Own source revenue</td>
<td>-543.19</td>
<td>-2691.25</td>
<td>1903.40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2210.50)</td>
<td>(2774.27)</td>
<td>(1558.64)</td>
</tr>
<tr>
<td></td>
<td>Non-Governmental Transfers</td>
<td>173.48</td>
<td>149.28</td>
<td>-42.74</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(544.95)</td>
<td>(400.94)</td>
<td>(386.35)</td>
</tr>
<tr>
<td></td>
<td>Inter-governmental transfers</td>
<td>569.46</td>
<td>-1907.69</td>
<td>1550.39</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2210.50)</td>
<td>(1252.71)</td>
<td>(1237.44)</td>
</tr>
<tr>
<td></td>
<td>R-squared</td>
<td>0.41</td>
<td>0.66</td>
<td>0.45</td>
</tr>
</tbody>
</table>

Cluster robust standard errors in parentheses : * significant at 10%; ** significant at 5%; *** significant at 1%