

# Fiscal Decentralization and Determinants of Property Tax Performance in Kenya: Cross-County Analysis

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## Abstract

This study investigates determinants of property tax performance across 47 counties in Kenya. We aim to contribute to limited empirical research in developing countries on factors contributing to low property tax performance. Though property tax is considered ideal for sub-national governments, its performance in Kenya is not only low but its share in both gross domestic product and own-source revenues are declining. There is growing consensus among fiscal decentralization experts that adequate own-source revenue for sub-national governments is a precondition for successful fiscal decentralization. In 2010 Kenya promulgated a new Constitution that mandates sub-national governments with more fiscal responsibilities; hence performance of property tax in Kenya is of immense policy interests than ever before. Past policy efforts to reform property tax in Kenya has hardly yielded positive results. The results show that urbanization, population density and administration capacity are key factors explaining property tax performance across the Kenyan counties. The results have implications for developing countries in terms of design of horizontal revenue sharing, and the need to enhance administration capacity for sub-national governments.

**Key words:** Property tax, developing countries, Kenya

## 1. Introduction

Ability to generate adequate own-source revenues by sub-national governments is a precondition for successful fiscal decentralization (Bird, 2011; Kelly, 2000; Olowu and Wunsch 2003). Sub-national governments in Kenya are however characterized by low own-source revenues as they heavily rely on transfers from the national government. Indeed, 60 percent of sub-national governments in Kenya have their expenditure financed by transfers from national government in excess of 50 percent (Commission on Revenue Allocation, 2013). Property tax is favorite own-source revenue for sub-national governments, largely due to immobility of tax base and predictability of revenues (McCluskey et al, 2013). However, low productivity of property taxes in developing countries is of immense policy interests (Kelly, 2000; McCluskey et al, 2013). Property tax performance in Kenya is declining both in terms of contribution to Gross Domestic Product (GDP), and share in own-source revenues for sub-national governments (Kelly, 2000, 2004).

Globally property taxes account for 40-80 percent of own-source revenues for sub-national governments and 0.5-3 percent of GDP (Kelly 2000a), while in developing countries the figures hardly reach 40 percent and 0.5 percent, respectively (Youngman and Malme, 1994). More recently, property tax as a percent of GDP in developing countries is estimated at 0.6 percent compared to transitional and OECD countries at 0.68 percent and 2.12 percent, respectively (Bahl and Martinez-Vazquez, 2007). While property tax in Kenya accounted for 26 percent of sub-national government own-source revenues and 0.37 percent of GDP in 1990-91 (Kelly, 2004), in recent years its importance is declining as illustrated in Figure 1. The contribution to GDP has deteriorated from 0.22 percent in 2002/2003 to 0.16 percent in 2009/2010. Over the same period, contribution to own-source revenues has deteriorated by four percentage points to stand at 24 per cent in 2009/10.

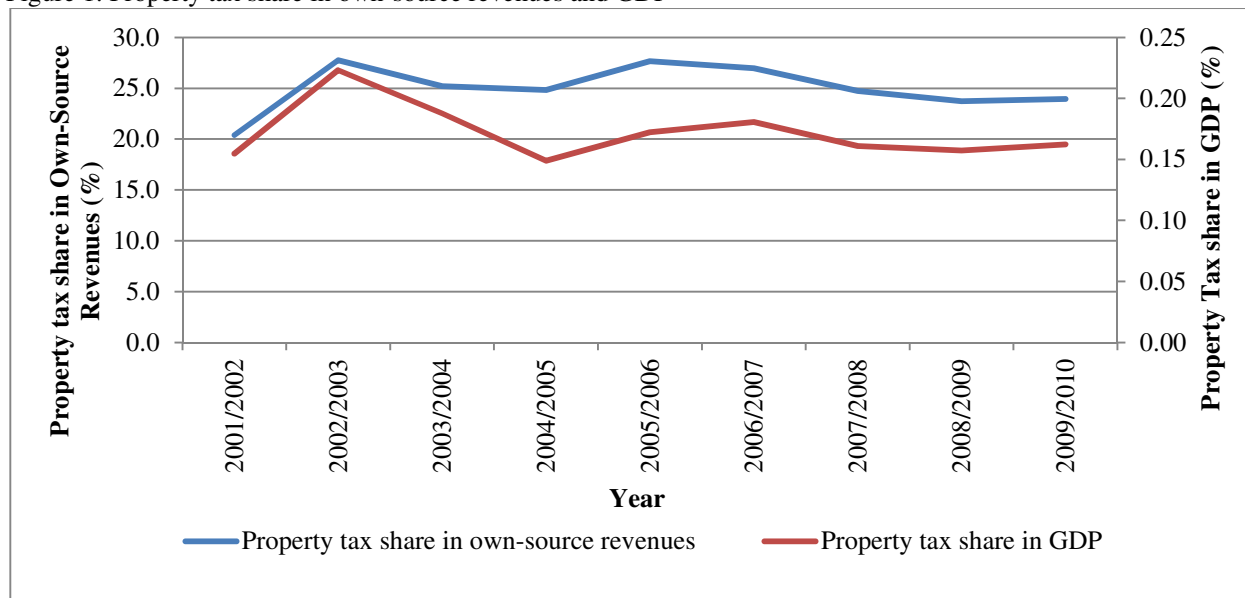
Past policy reforms have failed to improve performance of property tax in Kenya. The first major reform was in 1998 focusing on comprehensive collections through fiscal cadastre coverage, enhanced tax collection, enforcement and improved tax payer service (Kelly, 2000b). Other policy initiatives included incentives in form of reduction of up to five percent of tax liability for early payment of property tax, and monthly three percent interest rate on tax arrears (Kelly, 2013).

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Kenya promulgated a new constitution in 2010, paving way for a two-tier governance structure comprising of the national government and 47 county governments (Boex and Kelly, 2011). The county governments are however faced with uphill tasks of delivering services across 14 broad functional assignments. The looming challenge in service delivery by county governments is attributable to the assignment of narrow own-source revenue base which entails weak autonomous fiscal decisions (Boex and Kelly, 2011). Under the new constitutional dispensation, property tax will be core own-source revenue for the sub-national governments, despite its declining importance.

Figure 1: Property tax share in own-source revenues and GDP



Source: Authors' compilations from LATF annual reports (2001/02-2009/10) for property tax, and Kenya National Bureau of Statistics Economic Surveys (2002-2010) for GDP data

Another notable characteristic of property tax in Kenya, an issue of policy interests is the large variation of property tax productivity across the counties – For example, in 2009/2010 per capita property tax was Ksh. 583 (US\$ 6.7) for the best performing county, while five counties had per capita property tax of less than one Kenya shilling<sup>1</sup>. Extant research on determinants of property tax performance is however scanty in developing countries (Bahl and Martinez-Vazquez, 2007). Prior studies (Bird and Slack, 2004; Kelly, 2004, 2000a, 2000b) utilize theoretical approach and descriptive statistics to link low property tax productivity in developing countries to largely weak administrative capacity. We build on these studies by using unique data set collected from census of 175 Local Authorities (LAs) in Kenya, mapped into the newly established 47 county governments. It especially builds on conceptual framework developed by Kelly (2000a). We employ regression analysis to investigate effects of population density, urbanization, poverty, intergovernmental transfers and administrative capacity on per capita property tax productivity. We expect that the findings of this study will contribute to policy discourse on property tax enhancement in developing countries.

The remaining sections of the paper is organized as follows: In the following two subsections of Section 1 we provide institutional context of fiscal decentralization in Kenya, and review rationale of fiscal decentralization, providing underpinning driver in Kenyan context as provided for in the new Constitution. In section 2 we provide theoretical and empirical literature on determinants of property tax productivity. Section 3 provides data sources and methods employed in the analysis. Section 4 is the results and discussions, and section 5 concludes.

### 1.1 Institutional Context of Fiscal Decentralization in Kenya

To appreciate performance of property tax in Kenya it merits understanding the institutional context and historical background. The concept of devolution and fiscal decentralization in Kenya dates back to independence era in 1963. The Sessional Paper No. 2 of 1961 was the foundation of the Local Government Bill which provided for the Local Government Regulations of 1963 and establishment of the municipal, county, urban and local councils (Mboga 2009). The Independence Constitution of 1963, also referred to as the

<sup>1</sup> Statistics are based on authors' calculations from from 2009/2010 LATF annual reports.

majimbo<sup>2</sup> constitution (Rocaboy et al, 2013) provided for regional governments (majimbo) with a bicameral legislature comprising of the senate and the national assembly. The independence supreme law was however short-lived as the government continued to weaken sub-national governments through recentralization of political and fiscal powers (Okoth-Ogendo 1972; Rocaboy et al, 2013; Smoke, 1993).

The deliberate fiscal weakening of sub-national governments was motivated by a number of factors including incapacity of local governments to meet burgeoning service demands; desire by the central government to curtail political merger by minority communities; and the argument among development experts at the time that central planning is essential for rapid economic development (Smoke, 1993, 2003). The independence constitution consequently underwent more than 30 amendments between 1963 and 1990 (Republic of Kenya, 2011).

The Constitution of Kenya (Amendment) Act of 1969 consolidated all the constitutional amendments as at that time, hence resulting in a revised constitution. The main amendments included changing the governance structure from federal to unitary system; and changing bicameral legislature to unicameral legislature (Okoth-Ogendo 1972). The Transfer of Functions Act of 1969 further abolished most own-source revenue of LAs and transferred substantial service responsibility to central government. Key services including health, education and major roads were recentralized (Maina, 2004). As a comfort, grants were established to compensate LAs for revenue losses but they were progressively phased out (Smoke, 2003). The premeditated weakening of LAs was designed to be transitory but was never reversed (Smoke, 1993).

In 1977 the Local Government Act, Cap. 265 replaced the Local Government Regulations of 1963. The LAs operated under supervision of the now defunct Ministry of Local Government in revenue collections and expenditure responsibilities. The local government Act empowered the minister for local government to establish, vary boundary, or even dissolve the LAs (Maina, 2004). There were a total of 175 LAs comprising of 3 city councils, 43 municipal councils, 62 town councils, and 67 county councils when the new constitution was promulgated in 2010.

Another important law that governed operations of LAs and provide institutional and administrative producers for property tax collection was the Rating Act. This law permitted LAs to tax either land or improvements to land. However, in practice only land was taxed (Kelly, 2000a; Kitchen, 2013). Although the Rating Act provided broad flexibility in defining tax base including area rate, agricultural rental value rate, site value rate, and a site value rate in combination with an improvement rate; in practice LAs primarily relied on area rating and valuation rating (Kelly, 2000a). The LAs also collected other own-source revenues, mainly service charges and cess fees through by-laws issued under the provisions of the now repealed Local Government Act. In 1990s central-local government transfer was introduced in form of Local Authority Transfer Fund (LATF). LATF was established in 1998 through an Act of parliament to improve service delivery, financial management and reduce outstanding debt of LAs.

The taxing powers of the county governments in Kenya are now enshrined in the constitution of Kenya 2010, unlike previously when it was provided for through an Act of parliament. The Constitution exclusively assigns property tax and entertainment tax to county governments. The county governments are also mandated to charge user fees for services rendered. To mobilize own-source revenues, the county governments are empowered to enact local legislations through county assembly laws. The national-county government transfers under the new constitutional dispensation are in two levels. The first level takes form of vertical transfer, in which the Constitution provides that at least 15 percent of all audited revenue collected by the national government shall be allocated to county governments. The second level comprise of horizontal equitable share in which the allocations from the national government is equitably shared among the 47 county governments. The constitution also establishes the Commission on Revenue Allocation (CRA) to provide recommendations on the basis and formula for equitable revenue sharing, both vertically and horizontally. CRA is further mandated to provide recommendations on revenue enhancing strategies for both the national and county governments.

## 1.2 Rationale for Fiscal Decentralization

Fiscal decentralization, defined as transfer of taxing and expenditure responsibilities to sub-national governments (Fukasaku and de Mello, 1999) have recently become momentous governance topic in developing countries (Dick-Sago, 2012). The growing trends of fiscal decentralization among developing countries is attributable to failure of centralized planning to realize envisaged development goals; and growing fiscal intricacies resulting from international economic conditions (Smoke, 2001). Fiscal decentralization is thus largely viewed as a

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<sup>2</sup> *Majimbo* is a Kiswahili word meaning regions.

strategy for improved revenue mobilization and development at sub-national level (Dick-Sago, 2012). According to Enemu (2000) sub-national governments are better positioned to identify and prioritize needs of local communities, and thus have the comparative advantage of delivering public service. Further, tax evasion is likely to be minimized where tax payments by citizens is closely linked to development agenda at local level (Westergaard and Alam, 1995).

In post-colonial Kenya, the failure of centralized planning to achieve desired development goals is central in fiscal decentralization. This is manifested in the presence of highly skewed economic development across the country – for example the richest county in Kenya is estimated to have a poverty rate of 11.6 percent with the incidence in poorest county at 94.3 percent (Commission on Revenue Allocation, 2011). The objectives of devolution as specified in Article 174 of the Constitution of Kenya 2010 are a response to such deficiencies:

To promote social and economic development and the provision of proximate easily accessible services throughout Kenya; to protect and promote interests and rights of minorities and marginalized communities.

Property tax is preferentially assigned to sub-national governments given that tax base is highly visible and revenue is usually predictable and stable since the tax base is immobile (McCluskey et al, 2013). The significance of visibility in this context is two-fold. First, since property tax is paid in lump sum, tax payers pay greater attention to how it is utilized, and therefore the government have a strong incentive to provide local services efficiently (Kitchen, 2013). Second, unlike income-based taxes that are difficult to discover, land is immovable and highly visible, including improvements to land and sub-divisions (Walters, 2011).

## **2. Literature Review**

### **2.1 Theoretical Literature**

Taxes are often evaluated in terms of incidence, costs of administration and efficiency. The fundamental thought of efficiency is the extent to which tax introduces economic distortions, thus creating excess burden and welfare loss (Oates, 1999). The government performs the three principal functions of macroeconomic stabilization, income redistribution, and resource allocation (Musgrave, 1959) and assignment of functions between central and sub-national governments are based on preferences in achieving these objectives efficiently (Inanga and Osei-Wusu, 2004; Oates, 1972). The stabilization and redistribution functions are largely assigned to central governments while allocation function is usually assigned to sub-national governments (Ingana and Osei-Wusu, 2004; Sepulveda and Martinez-Vazquez, 2011). The argument for centralization of stabilization function hinges on the premise that sub-national governments are small and have little effect on macro environment (Rossi and Dafflon, 2002; Sepulveda and Martinez-Vazquez, 2011). Redistribution policies are best suited for the national government because mobility of the rich and the poor across sub-national jurisdictions stifles efforts by a single sub-national government to implement policies that favour the poor (Yilmaz et al, 2012). Property tax is therefore preferentially assigned to sub-national governments because it provides relatively stable revenue sources (Fjeldstad and Heggstad, 2012) and revenue base has low mobility between jurisdictions (Fjeldstad and Heggstad, 2012).

Property tax productivity is a function of both policy and administrative variables (Kelly, 2000a, 2013; Sepulveda and Martinez-Vazquez, 2011). Policy variables include tax base definition, valuation standards, tax rates and enforcement provisions; while administrative variables comprise completeness of fiscal cadastre, valuation accuracy, collection and enforcement capacities (Kelly, 2000a, 2013; Sepulveda and Martinez-Vazquez, 2011). There is increasing consensus among property tax scholars that the major problem of enhancing performance of property tax in developing countries is poor administrations in updating fiscal cadastre, unnecessary exemptions, collection and enforcement capacities, thus stifling statutory tax policy (Kelly, 2000a; 2000b; Sepulveda and Martinez-Vazquez, 2011). While policy variables with respect to tax base definitions and tax rates determine revenue yield, quality of administration will determine the extent to which tax base is captured in fiscal cadastre, accuracy of property valuations, and the extent to which tax bills are collected (Kelly, 2013).

### **2.2 Empirical Literature**

There are two strands of empirical literature on determinants of property tax performance. The first strand, uses descriptive statistics; for example by assessing proportion of property that is captured on tax rolls, or proportion of proper tax in GDP and linking the observations to theoretical propositions. Generally this strand of literature

hints at administration challenges as critical factors for low property tax productivity in developing and transition countries (Bird and Slack, 2004; Kelly, 200a, 2000b; Smoke, 1993, 2003). The challenges stifling property tax productivity is acute in developing countries, mainly attributable to obsolete or incomplete fiscal cadastre (Kelly, 200a, 2000b, 2013; Rocaboy et al, 2013; World Bank, 2002) unnecessary exemptions contrary to provisions of legal framework, inadequate capacities of sub-national governments to maintain fiscal cadastre information (Kelly, 2000a, 2013) and weak political will (Kelly, 200a, 2013; Smoke, 2003; World Bank, 2002). Weak political will particularly in developing countries can be linked to the fact that the wealthy citizens who have political influence own most of the properties (Fjeldstad and Heggstad, 2012). The administration challenges stifling property tax productivity is a key characteristics of developing countries (Bahl and Martinez-Vazquez, 2007; Kelly, 2000a, 2013; McCluskey et al, 2013; Sepulveda and Martinez-Vazquez, 2011).

Lack of tax payer faith in utilization of revenues and equity of the tax system, high compliance costs, lack of enforcement measures, cultural attitude expecting free services from the government, complexities in understanding tax system and payment procedures (Kelly, 2013) also impede property tax productivity. Poor service delivery and corruption adversely affects tax payers perception of exploitation, thus promoting resistance incidences (Fjeldstad and Semboja, 2000; Fjeldstad, 2001; Kelly, 2013). Ambiguous property rights and inadequate formal property markets which have implications for enforcement and valuation further impede property tax yield especially in developing countries (McCluskey et al, 2013).

The second strand of empirical literature utilizes regression analysis (Bahl and Martinez-Vazquez, 2007; Portnovet et al, 2001; Sepulveda and Martinez-Vazquez, 2011) and is less common than the former approach, possibly due to scarcity of relevant micro data. Sepulveda and Martinez-Vazquez (2011) in a study of Latin American countries find negative effects of current per capita intergovernmental transfers on property tax collections per capita in Brazil and Peru. Their findings signal potential disincentive effects of intergovernmental revenue transfers on property tax collections; but they caution their findings against potential endogeneity arising from simultaneity bias. Their findings also suggest positive effects of revenue autonomy (measured by ratio of own taxes to total revenues for sub-national governments) on property tax collections.

Portnovet et al (2001) in a study in Israel and using multiple regression analysis establish that per capita property tax collected by local authorities is positively affected by population size, average monthly wage, and incidence of a local authority predominantly occupied by Jews. They also establish that increasing distance to the nearest major town negatively affects per capita property tax collected. Bahl and Martinez-Vazquez (2007) using a three-year panel data of 70 developing countries establish positive effects of level of fiscal decentralization, measured as ratio of sub-national government expenditure to total government expenditure, on property tax revenue use. Even after controlling for possible endogeneity bias, they establish the effects to be statistically significant. They also find higher level of urbanization, GDP per capita and population growth rate to positively affect property tax mobilization. However, they find country population size to be negatively related to property tax collection.

### 3. Data and Methods

#### 3.1 Data

The data on property tax, number of personnel and transfers from the national government was obtained from the 2009/2010 Local Authority Transfer Fund (LATF) annual report; while those on poverty, population density, and urbanization was compiled from the Commission on Revenue Allocation (2013) County Fact Sheet.

#### 3.2 Estimation Method and Empirical Model

We employ Ordinary Least Squares (OLS) to estimate effects of the explanatory variables on property tax performance, measured on per capita basis. The data for the 175 LAs was mapped into respective counties and aggregated. The following empirical model was estimated:-

$$\text{Percaptax}_i = \beta_0 + \beta_1 \text{pop\_density}_i + \beta_2 \text{poverty}_i + \beta_3 \text{urban\_pop}_i + \beta_4 \text{percap\_latf}_i + \beta_5 \text{no\_personnel}_i + e_i$$

Following Sepulveda and Martinez-Vazquez (2011), we use per capita property tax revenue (percaptax) as the dependent variable. The explanatory variables include county population density (pop\_density); county poverty rates in percent (poverty); county urbanization in percent (urban\_pop); per capita central government transfer (percap\_latf); and the number of county LAs personnel (no\_personnel) to proxy for administrative capacity.



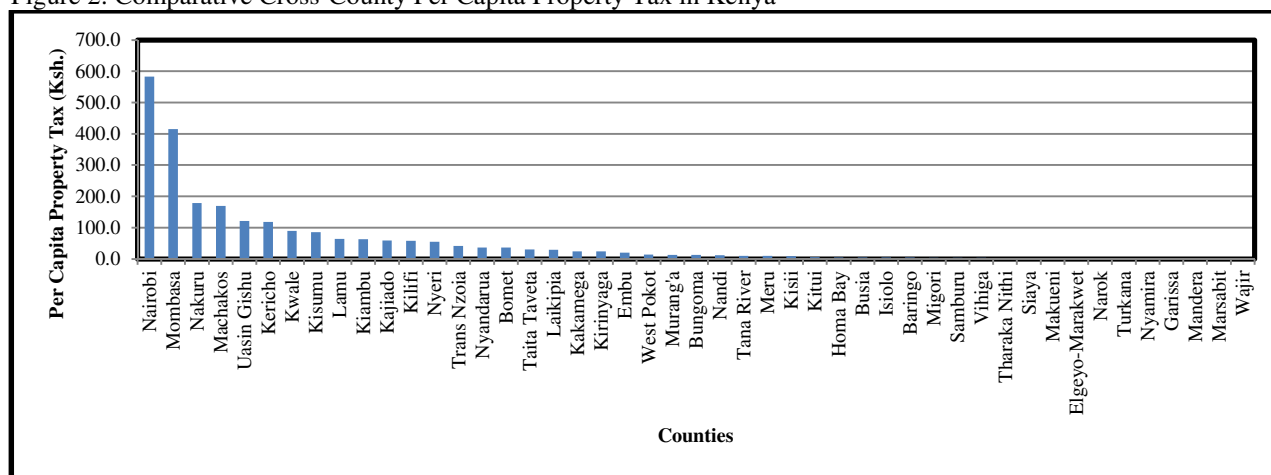
Population density was included because higher population density is expected to positively affect property market values and hence the tax base. Poverty rate was used as a proxy for level of county development and hence ability to pay which may affect political will and the degree of enforcement by authorities. Moreover, poor service delivery may increase tax payer resistance (Kelly, 2013; Fjeldstad, 2001), and poverty may result largely from skewed public investments (Republic of Kenya, 2011). Urban population may affect property tax yield due to higher values of tax base resulting from high demand in urban areas. Further, share of urban population is likely to affect differently size and composition of tax base in urban and rural areas (Sepulveda and Martinez-Vazquez, 2011). Central government transfer, measured by per capita LATF was included to establish whether such transfers have disincentive effects on property tax collections. High levels of external resources to supplement local revenues may diminish incentives to optimize local taxes by sub-national governments leading to free rider problem (Bräutigam and Botchwey, 1999). Number of LAs personnel proxy for administrative capacity, and thus counties with higher number of LAs personnel are expected to enhance collection ratio. Administration capacity has significant implications for key aspects of property tax yield such as coverage ratio and valuation ratio (Kelly, 2000, 2013, Sepulveda and Martinez-Vazquez, 2011).

#### 4. Results and Discussions

##### 4.1 Descriptive Statistics

Figure 2 provides comparative per capita property tax across the 47 counties. Per capita property tax varies across counties with urban counties including Nairobi, Mombasa and Nakuru leading. Counties in rural and arid regions including Mandera, Marsabit and Wajir perform poorly. Property tax revenue depends on multiplicity of factors including institutional, cultural and economic factors (Sepulveda and Martinez-Vazquez, 2011). The relatively better performance of major urban areas can be explained by enhanced administrative resources, higher property values and clearly defined property rights. The counties in arid regions are primarily inhabited by pastoral communities with sparse population density and therefore characterized by predominance of community land with no clearly defined property rights. Rural counties may also lack formal property markets, impeding property valuation.

Figure 2: Comparative Cross-County Per Capita Property Tax in Kenya



Source: Authors' compilations from the 2009/2010 LATF Annual Report

The summary statistics are provided in Table 1. The average for per capital property tax is KSh. 52 (US\$ 0.60). There exists large disparity across the counties, both in terms of per capita property tax and explanatory variables. The disparities in population density, poverty rate and urbanization could be attributed to national policies implemented by the central government in post independence which favored investments in agriculturally productive regions. The Sessional Paper No. 10 of 1965 on African Socialism and its Application to Planning in Kenya (Republic of Kenya, 1965) continued to perpetuate economic exclusion of the arid regions by the colonial government. The policy divided Kenya into 'high potential' and 'low potential' areas on the basis of production capacity of cash and food crops and directed the government to direct resources to areas with high agricultural potential. The zoning of the country as 'low-potential' or 'high-potential' was based on the settler economy, which was anchored on British needs at the time (Republic of Kenya, 2011). The ideology of the policy was based on the strategy of investing resources in areas of 'high economic potential' in order to attain

rapid economic growth and redistribute the proceeds to ‘low potential areas’. However, lack of effective policy framework to achieve the redistributive goal led to social and economic marginalization of arid regions.

Table 1: Summary statistics

Variable	Observations	Mean	Std. Dev.	Min.	Max.
Per capita property tax	47	51.64	106.115	0	582.85
Population Density	47	407.32	883.34	4	4,515
Poverty rate (%)	47	51.94	18.36	12	94
Urbanization (%)	47	25.70	20.17	7	100
Per capita LATF transfer (KSh.)	47	214.98	100.65	18	572
No. of LAs personnel	47	368.04	1,700.32	1	11,742

Data Source: 2009/2010 LATF Annual Report; Commission on Revenue Allocation (2013)

#### 4.2 Regression Results

First, we present diagnostic tests for multicollinearity and heteroskedasticity which may possibly arise. If the explanatory variables are imperfectly multicollinear, the coefficient on at least one of the explanatory variable may be imprecisely estimated due to large sampling variance (Stock and Watson, 2012). Generally multicollinearity is a matter of degree and concerns majorly relate to the extent to which it inflates the standard error of estimated coefficients (Studenmund, 2005). Since perfect multicollinearity violates the assumption requiring that no explanatory variable is a perfect linear function of other explanatory variables and leads to indeterminate estimates of coefficients, key concerns in applied work relates to imperfect multicollinearity (Studenmund, 2005). To test for possible multicollinearity among explanatory variables, Variance Inflation Factors (VIF) was computed. VIF measures severity of the extent to which multicollinearity has increased the variance of an estimated coefficient (Studenmund, 2005). The VIF individually ranges between 1.14 and 4.03, below the threshold of 10 (Kennedy, 2008) and five in case of fewer explanatory variables (Studenmund, 2005). Table 2 shows the correlation matrix for the explanatory variables. The correlation among explanatory variables ranges between 25.2 percent and 81.3 percent. High correlation among explanatory variables does not necessarily cause poor estimates if other factors determining variances of regression coefficients are correctly specified, including variance of the error term (Dougherty, 2008; Studenmund, 2005) and the best remedy is to do nothing if t-scores are not decreased to the point of insignificance (Studenmund, 2005).

Table 2: Correlation matrix for the explanatory variables

	Pop_density	poverty	Urban_pop	Percap_latf	no_personnel
Pop_density	1.0000				
Poverty	-0.3330	1.0000			
Urban_pop	0.7897	-0.3172	1.0000		
Percap_latf	0.7148	-0.2639	0.8131	1.0000	
No_personnel	0.7022	-0.2516	0.5627	0.5004	1.0000

Source: Authors’ calculations

To control for possible heteroskedasticity of residuals (Whites p-value=0.06) we use robust standard errors as suggested by Wooldridge (2013). Table 3 shows the regression results. The coefficients of county population density, urbanization and number of LAs personnel (proxy for administration capacity) are statistically significant and positive. The coefficient of poverty is however negative as expected but is insignificant while the

coefficient of per capita LATF transfer is positive and insignificant. The implications of the results point at the theoretical postulations that the main constraint to property tax collections in developing countries is administrative challenges. Densely populated and urban areas are also likely to have formal property rights, and easily identifiable market prices guiding in valuations. Counties with lower population densities and urbanization have lower per capita property tax, possibly due to limited formal property markets, low property values and relatively higher administrative costs in monitoring compliance and updating fiscal cadastres. Counties with higher administrative capacity as proxied by LAs personnel have higher per capita property tax, which can be explained by advantages accruing from human resources in updating fiscal cadastre, monitoring compliance and enforcement.

Table 3: Regression Results

Variables	Coefficient	t-statistic
Population Density (pop_density)	0.0348** (0.0163)	2.14
County Poverty Rate (poverty)	-0.00364 (0.265)	-0.01
County Urbanization (urban_pop)	2.351*** (0.821)	2.86
County Per Capita LATF Transfer (percap_latf)	0.0511 (0.101)	0.51
County total LAs personnel (no_personnel)	0.0172*** (0.00375)	4.59
Constant	-40.09* (20.00)	-2.00
Observations	47	
R-squared	0.887	
F(5, 41)	2,892.82	
Prob.>F	0.0000	

Source: Authors' compilation. Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## 5. Conclusion

This study has established that property tax performance across Kenyan counties is explained by urbanization, population density and administrative capacity. Adequate own-source revenue is a precondition for successful fiscal decentralization, and declining performance of property tax in Kenya is of immense policy interests. In light of immobility of tax base, predictability of revenues and high visibility, property tax is both in theory and practice principally assigned to sub-national governments. Compared to both global and developing countries



averages, Kenya performs poorly in property tax productivity, and there exists great disparities across the counties. The results of this study have implications for developing countries. First, the design of horizontal revenue sharing should take into account capacity to generate own revenues from property tax, based on urbanization and population density variables. Second, enhancing administrative capacity of sub-national governments is paramount in mobilizing property tax revenues.

There exists opportunities for future research to extend the current work. Due to data limitations we have not controlled for some policy and administrative variables which may prove to be important in explaining property tax performance across Kenyan counties. We hope as the Kenyan counties continue to position themselves, data on some interesting variables can be collected through surveys of the counties. As postulated by theoretical literature, property tax performance may be affected by various policy and administrative variables. Some of the policy variables suggested by theories include enforcement provisions, tax rate structures and valuation standards; while administrative variables include tax payer services, completeness of fiscal cadastre, and accuracy of valuations. Future research can extend current work by investigating some of these policy and administrative variables on property tax performance and their relative importance. Future research should also consider utilizing longitudinal data to glean dynamic relationships which may not be apparent in cross-sectional analysis.

### References

- Bahl, R. & Martinez-Vazquez, J. (2007). The property tax in developing countries: Current practices and prospects. Working Paper WP07RB1. Cambridge, MA: Lincoln Institute of Land Policy.
- Bird, R. (2011). Sub-national taxation in developing countries: A review of the literature. *Journal of International Commerce, Economics and Policy* 2(1), 139-161
- Bird, R.M. & Slack, E. (2004). Reforming property taxes, in: Bird, R.M., Slack, E. (Eds.), *International Handbook of Land and Property Taxation*, 57-66. Cheltenham: Edward Elgar Publishing.
- Boex, J. & Kelly, R. (2011). Fiscal decentralization in Kenya: A small step or a giant leap? Washington D.C.: Urban Institute Center on International Development Policy Brief.
- Bräutigam, D. & Botchwey, K. (1999). The institutional impacts of aid dependence on recipients in Africa. Bergen: Chr. Michelsen Institute, working paper WP 1999:1.
- Commission on Revenue Allocation. (2013). Kenya county fact sheets 2<sup>nd</sup> edition. Nairobi: Commission on Revenue Allocation.
- Commission on Revenue Allocation. (2011). Kenya county fact sheets 1<sup>st</sup> edition. Nairobi: Commission on Revenue Allocation.
- Dick-Sagoe, C. (2012). Survey of literature on fiscal decentralization as a sustainable local development tool in Ghana. *Journal of Sustainable Development in Africa* 14(3), 228-251.
- Enemuo, F.C. (2000). Problems and prospects of local governance, in: Hyden, G., Olowu, D., Ogendo, H. (Eds.), *African perspectives of governance*, 181-204. Eritrea: Africa World Press.
- Fjeldstad, O. & Heggstad K. (2012). Local government revenue mobilization in Anglophone Africa. Bergen: Chr. Michelsen Institute Working Paper 2012:6.
- Fjeldstad, O. (2001). Taxation, coercion and donors: Local government tax enforcement in Tanzania. *The Journal of Modern African Studies* 39(2), 286-306
- Fjeldstad, O. & Semboja J. (2000). Dilemmas of fiscal decentralization: A study of local government taxation in Tanzania. *Forum for Development Studies* 27(1), 7-41
- Fukasaku, K. & de Mello L.R. (1999). (Eds.), *Fiscal decentralization in emerging economies: Governance Issues*. Paris: OECD Developing Centre.
- Inanga, E.L. & Osei-Wusu, D. (2004). Financial resource base of sub-national governments and fiscal decentralization in Ghana. Oxford: African Development Bank and Blackwell Publishing Ltd.
- Kelly, R. (2013). Property tax collection and enforcement, in. McCluskey W.J., Cornia G.C., Walters LC. (Eds.), *A primer on property tax administration and policy*, 141-171. West Sussex: Blackwell Publishers Ltd.
- Kelly, R. (2004). Property taxation in Kenya, in: Bird, R.M. & Slack, E. (Eds.), *International Handbook of Land and Property Taxation*, 177-188. Cheltenham: Edward Elgar Publishing.
- Kelly, R. (2000a). Designing property tax reform strategy for sub-Saharan Africa: An analytical framework applied to Kenya. *Public Budgeting and Finance* 20(4), 36-51
- Kelly, R. (2000b). Property taxation in East Africa: The tale of three reforms. Harvard Institute for International Development Working Paper No. 753
- Kennedy, P. (2008). *A guide to econometrics*. Oxford: Blackwell publishing.

- Kenya National Bureau of Statistics. (various 2002-2010). Economic surveys. Nairobi: Kenya National Bureau of Statistics.
- Kitchen, H. (2013). Property tax: A situational analysis and overview, in: McCluskey W.J., Cornia, G.C. Walters, L.C. (Eds.), *A Primer on Property Tax Administration and Policy*, 1-40. West Sussex: Blackwell Publishers Ltd.
- Maina, B. (2004). Monitoring and evaluation of support to decentralization and local governance: Kenya case study. Maastricht: ECDPM Discussion Paper 61
- Mboga, H. (2009). Understanding the local government system in Kenya: A citizen's handbook. Nairobi: Institute of Economic Affairs.
- McCluskey, W.J., Cornia G.C. & Walters L.C. (2013). Introduction, in: McCluskey, W.J., Cornia G.C., Walters, L.C. (Eds.), *A primer on property tax administration and policy*, xxiv-xxix. West Sussex: Blackwell Publishers Ltd.
- Musgrave, R. (1959). *The theory of public finance*. New York: McGraw Hill.
- Oates, W.E. (1999). Local property taxation: An assessment. *Land Lines*. Newsletter of the Lincoln Institute of Land Policy, 11(3), 1-3
- Oates, W.E. (1972). *Fiscal federalism*. New York: Harcourt Brace Jovanovich.
- Okoth-Ogendo, H.W.O. (1972). The politics of constitutional change in Kenya since independence, 1963-1969. *African Affairs*, 71(282), 9-34
- Olowu, D. & Wunsch, J.S. (2003). *Local governance in Africa: The challenges of democratic decentralization*. Boulder: Lynne Reinner.
- Portnov, B.A. McCluskey, W.J. & Deddis, W.G. 2001. Property taxation in Israel: A non-ad valorem approach. *Land Use Policy*, 18,351-364
- Republic of Kenya. (2011). Final report of the taskforce on devolved government Vol. 1: A report on the implementation of devolved government in Kenya. Nairobi: Office of the deputy prime minister and ministry of local government.
- Republic of Kenya. (2010). *The constitution of Kenya, 2010*. Nairobi: The Government Printer.
- Republic of Kenya. (Various 2001/02-2009/10). *Local authorities transfer fund (LATF) annual report and review of financial performance*. Nairobi: The Government Printer.
- Republic of Kenya. (1965). Sessional paper no. 10 of 1965 on African socialism and its application to planning in Kenya. Nairobi: Government Printer.
- Rocaboy, Y., Villancourt, F. & Hugounenq, R. (2013). Public finances of local government in Kenya, in: Dafflon, B., & Madiès, T. (Eds.), *The Political Economy of Decentralization in Africa: A New Implementation Model in Burkina Faso, Ghana, Kenya, and Senegal*. Washington D.C., World Bank.
- Rossi, S. & Dafflon, B. (2002). The theory of sub national balanced budget and debt control, in: Dafflon, B. (Ed.), *Local Public Finance in Europe: Balancing the Budget and Controlling Debt*, 15-44. Cheltenham: Edward Elgar
- Sepulveda, C. & Martinez-Vazquez J. (2011). Explaining property tax collections in developing countries: The case of Latin America. *International studies program working paper 11-09*
- Smoke, P. (2003). Kenya: Erosion and reform from the center, in: Olowu, D., Wunsch, J.S. (Eds.), *Local Governance in Africa: The challenges of Democratic Decentralization*. Boulder, Co.: Lynne Reinner Publishers.
- Smoke, P. (2001). *Fiscal decentralization in developing countries: A review of current concepts and practices*. United Nations Research Institute for Social Development, Programme Paper No. 2
- Smoke, P. (1993). Local government fiscal reform in developing countries: Lessons from Kenya. *World Development* 21(6), 901-923
- Studenmund, A.H. (2005). *Using econometrics: A practical guide*, 5<sup>th</sup> ed. Boston: Addison Wesley.
- Walters, L. (2011). *Land and property tax: A Policy Guide*. Nairobi: UN-HABITAT.
- Westergaard, K. & Alam, M.M. (1995). Local government in Bangladesh: Past experiences and yet another try. *World Development* 23(4), 679-690
- Wooldridge, J.M. (2013). *Introductory econometrics: A modern approach*, 5<sup>th</sup> ed. Mason, OH: South-Western.
- World Bank. (2002). *Kenya: An assessment of local service delivery and local governments in Kenya*. World Bank Report No. 24383
- Yilmaz, S., Vaillancourt, F. & Dafflon, B. (2012). State and local governments: Why they matter and how to finance them, in: Ebel, R.D., Petersen, J.E. (Eds.), *The Oxford Handbook of State and Local Government Finance*, 105-136. Oxford: Oxford University Press.
- Youngman, J. & Malme, J. (1994). *An international survey of taxes on land and buildings*. Amsterdam: Kluwer Law and Taxation Publishers.