Designing a Property Tax Reform Strategy for Sub-Saharan Africa: An Analytical Framework Applied to Kenya

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Countries throughout Sub-Saharan Africa are exploring options to improve local property taxation. Using the case of Kenya, this article provides an analytical framework for designing an effective property tax reform strategy. The first section presents a general conceptual model of property tax revenues, identifying four critical ratios that ultimately determine the effectiveness of any property tax system—namely, the coverage ratio, the valuation ratio, the tax ratio, and the collection ratio. The second section applies this conceptual framework to the property tax system in Kenya, focusing on the status of these four ratios and outlining possibilities for improving each ratio. The article concludes by summarizing five basic lessons from the Kenyan analysis that can assist in the development of appropriate property tax reforms in other developing countries in Sub-Saharan Africa.

INTRODUCTION

Developing countries everywhere are undertaking fiscal decentralization and local government reforms to improve economic efficiency and accountability. These reforms involve rationalizing expenditure and revenue responsibilities along with establishing intergovernmental transfer programs to enable governments to better fulfill their stabilization, distribution, and allocation functions.[1]

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1. Inter-American Development Bank, *Latin America after a Decade of Reforms* (Washington, D.C.: Distributed by Johns Hopkins Press, 1997), and Teresa Ter-Minassian, ed., *Fiscal Federalism in Theory and Practice* (Washington, D.C.: International Monetary Fund, 1997).

One critical prerequisite for sustainable local government reform is adequate financial resources. Thus, in addition to supplementing local resources through establishing central-local revenue transfers, governments are searching for ways to mobilize and improve existing local own-source revenue sources. Virtually all countries seem to be focusing on strengthening the property tax, the most common revenue source for local governments throughout the world.[2]

Developing countries in Sub-Saharan Africa are no exception. As one writer recently noted, property taxation is "one of the most lucrative … yet least tapped sources of tax revenue to support urban government in Africa."[3] Despite this recognition, however, property taxation continues to be plagued by problems. In several African countries, the central government is hesitant to devolve property tax policy and administrative authority to local authorities, while at the same time remaining indifferent in terms of promoting property tax reform. In other cases, even when authority is granted or when the central government is interested in reform, progress is slow because of perverse incentives, inappropriate property tax policy, the lack of property administrative systems, trained personnel, and synchronization of improved local service delivery with enhanced revenue mobilization.[4]

In an effort to address these various problems, policymakers and donor agencies are exploring ways to design and implement more effective property tax reform strategies. The first step is to undertake a thorough analysis of the existing property tax system, identifying the major constraints and opportunities for improvement. An appropriate reform strategy must then be designed, focusing on policy, administration, and implementation.

This article focuses specifically on designing an appropriate property tax reform strategy. The article begins by presenting a general conceptual model of property tax revenues, identifying four critical ratios that ultimately determine the effectiveness of any property tax system. The article's second section applies this conceptual framework to the property tax system in Kenya, reviewing these four ratios and outlining options for improving each ratio. The third section concludes by summarizing five lessons from the analysis in Kenya. It is hoped that this analytical framework as applied to Kenya will serve as a useful tool for designing appropriate property tax reforms in other developing countries.

CONCEPTUAL MODEL OF PROPERTY TAX REVENUES

Property taxation plays a major role in financing local governments throughout the world. Although comparative data are scarce, property taxes account for 40–80 percent of local

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2. William Dillinger, *Urban Property Tax Reform: Guidelines and Recommendations,* World Bank Urban Management Program Tool no. 1 (Washington, D.C.: World Bank, 1991).

3. Charles Mou, "Major Property Tax Issues in Africa," *Property Tax in Eastern and Southern Africa: Challenges and Lessons Learned,* Working Paper No. 2 (Harare, Zimbabwe: Municipal Development Programme, 1996), 4–9.

4. Municipal Development Programme, *Property Tax in Eastern and Southern Africa* (Harare, Zimbabwe: Municipal Development Programme, 1996).

government finance, 2–4 percent of total government taxes, and about 0.5–3.0 percent of GDP. In contrast to developed countries, developing countries tend to generate significantly less property tax revenue, with property taxes typically generating a maximum of 40 percent of local government revenue, 2 percent of total government revenue, and about 0.5 percent of GDP.[5]

Kenya is a clear example of a developing country underutilizing its property tax capacity. Property taxes (known in Kenya as rates) provide an average of 22 percent of total recurrent revenues for local authorities and represent 1.3 percent of total government tax revenue and 0.3 percent of GDP.[6] The property rates in 1994–95 provided K£ 60.2 million and K£ 5.1 million to the municipal councils and to town, urban and county councils, respectively.

In nominal terms, rates have grown annually by 17 percent since 1990–91. In inflation-adjusted real terms, however, rates revenues have remained stagnant. As a percentage of local authority revenues, rates have declined in importance from 26 percent in 1990–91 to 22 percent in 1994–95, and revenue from rates has fallen from 0.37 to 0.30 percent of GDP. Thus, not only are the rates in Kenya under-performing relative to taxes in other developing countries, but the revenue productivity has (1) remained stagnant, (2) declined in relative contribution to total local authority recurrent revenues, and (3) declined as a percentage of GDP.

Property tax by its structure is not automatically a buoyant revenue source, so these property tax statistics for Kenya are not surprising. Property tax revenues stagnate primarily because of lags in maintaining tax base coverage, inaccurate valuations, and inadequate collection and enforcement. Although policy decisions on tax base definitions, exemptions, valuation standards, and collection and enforcement provisions influence revenue yield, the key to revenue buoyancy is largely improved administration. That is, the government must ensure that all property is on the tax rolls, that property is valued close to market value, that the tax is assessed accurately, and that the revenue is collected and enforced.

Property taxation relies extensively on *active* government participation to ensure that tax base information and property values are kept up-to-date and that taxes are properly assessed, billed, collected, and enforced. Thus, any property tax reform strategy must recognize this administrative-intensive nature and the importance of direct and active government administration for its revenue buoyancy.

5. Joan Youngman and Jane Malme, eds., *An International Survey of Taxes on Land and Buildings* (Amsterdam: Kluwer, 1994); Roy Kelly, "Property Tax Reform in Southeast Asia: A Comparative Analysis of Indonesia, the Philippines and Thailand," *Journal of Property Tax Assessment and Administration* 1 (1995): 60–81; International Monetary Fund, *Government Finance Statistics Yearbook* (Washington, D.C.: IMF, 1996); and Organization for Economic Cooperation and Development, *Revenue Statistics (1997)* (Paris: OECD, 1997).

6. Figures are from Government of Kenya, *Economic Survey 1995, 1996, 1998* (Government of Kenya, Central Bureau of Statistics), and *Quarterly Budget Review for Fiscal Year 1995/96* (Government of Kenya, Ministry of Finance, Sept. 1996).

A property tax system involves six major functions: (1) tax base identification, (2) tax base valuation, (3) tax assessment, (4) tax collection, (5) tax enforcement, and (6) dispute resolution and taxpayer service. As summarized in Table 1, each of these functions is linked to four critical ratios of coverage, valuation, tax, and collection. The following conceptual model of property tax revenue illustrates the relationship between total revenue collection and these various ratios. As the formula indicates, *tax revenue* is a function of two variables related to policy choices, namely *tax base* definition and tax ratio (*TR*), and three variables related to administrative action, namely increasing the coverage ratio (*CVR*), valuation ratio (*VR*), and collection ratio (*CLR*):

$$tax\ revenue = tax\ base * TR * CVR * VR * CLR$$

Definition of Model Variables

1. The *tax base* variable is defined by government policy in terms of what is and what is not taxed. Countries typically include a combination of land and buildings, depending largely on historical precedent and administrative feasibility. Some countries tax only land (e.g., Jamaica, Bermuda, Kenya, and New Zealand), and others tax only buildings (e.g., Tanzania and Ghana), whereas most tax both land and buildings (e.g., the countries of North America, Western Europe, East and Southeast Asia, and Latin America). Some countries where property tax legislation is at the provincial or state level allow a variation in the tax base choice (e.g., South Africa, where some local governments tax only land whereas others tax both land and buildings).

   The property tax base is typically defined broadly to include all land, all buildings, or both, with exemptions listed separately in legislation. Typical properties receiving exemptions include (a) international governments and organizations, based on reciprocity or treaty agreements; (b) religious, social, and educational properties such as churches, schools, hospitals, and charity organizations; and (c) government property.[7] Many countries also legally or administratively exclude land that is not yet "proclaimed" (e.g., South Africa), "gazetted" (e.g., Kenya and Tanzania) or planned (e.g., Zambia), and many countries do not include tribal land or rural land in their fiscal cadastres (e.g., South Africa and Uganda). Many countries allow special tax exemptions to be granted at the discretion of the minister or the local authorities (e.g., Tanzania, Kenya, and South Africa).

2. The tax ratio (*TR*) variable is defined as the "rate struck" for the taxing jurisdiction, measuring the tax amount per value of the property that is to be paid as tax under an

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7. Although most countries exempt government property, some countries explicitly tax government land like private property (e.g., Kenya through its "contributions in lieu of rates") or tax government land preferentially (e.g., South Africa and Namibia, which provide a 20 percent reduction in the tax rate on government land). In other countries, the central government makes a lump sum ad hoc contribution to local authorities for services rendered to government in lieu of paying explicit property taxes (e.g., the United States).

TABLE 1
Property Tax Administration Functions and the Four Critical Ratios

Property Tax Function	Objective	Action	Critical Ratio
Tax Base Identification	To determine what will be taxed	Identify the tax base (land, building and/or machinery and equipment) Identify the exemptions from the tax base	Coverage Ratio
Tax Base Valuation	To determine how the tax burden will be distributed among the taxpayers	"Weight" the tax base (either by area, by other characteristics or by value) Influence the distribution of the tax burden among the taxpayers	Valuation Ratio
Tax Assessment	To determine how much tax will be levied To determine how the tax burden will be distributed among the taxpayers	Determine the overall tax level Influence tax burden distribution among taxpayers through varying effective tax rates	Tax Ratio
Tax Collection	To collect the tax	Issue and deliver the tax bills Collect the tax	Collection/ Enforcement Ratio
Tax Enforcement	To determine how much revenue will be collected though enforcement	Enforce against noncompliance (sanctions and penalties)	Collection/ Enforcement Ratio
Tax (and Valuation) Appeals Resolution	To ensure that the tax is equitably administered	Resolve disputes concerning the property information, valuation or tax assessment	(linked to Coverage, Valuation, and Tax Ratio)
Taxpayer Service	To provide service to the taxpayer	Taxpayer education Taxpayer service	Linked to Collection Ratio (i.e., good taxpayer service will encourage higher collection ratio)

ad valorem system or as the tax amount per unit under an area rating system. The tax ratio or the unit tax amount is normally determined through the annual budget process. In simplest form, the tax rate structure would be an average uniform rate applied to the potential tax base.

Tax rate levels and structures vary throughout the world. Property taxation in some countries is a central government shared tax: The central government sets the tax rate, with no discretion given to the local governments (e.g., Indonesia and Chile). Most countries, however, allow local governments to set tax rates, often requiring central government approval (e.g., Tanzania, Malawi, Namibia, and Zambia). Other countries allow local governments to set rates within general limits set by the central government (e.g., the Philippines), and some allow local governments to set tax rates up to a maximum, above which central government approval is needed (e.g., Kenya).

The tax rate structure also varies among localities: Some apply a uniform tax rate to all taxable properties (e.g., Tanzania and Kenya), wheras others apply differential tax rates, depending on land use, land tenure, or tax base (e.g., the Philippines, South Africa, and Ghana).[8] Taxing jurisdictions also vary in their use of separate tax rates on vacant land, tax assessment ratios, tax rate surcharges, tax exemptions, tax credits, and valuation deductions. The use of different tax rates, in combination with the various deductions, credits, and exemptions, create differential effective tax rates that affect revenue potential, equity, efficiency, and ease of administration of any property tax system.

3. The coverage ratio (CVR) variable is defined as the amount of taxable property captured in the fiscal cadastre (discussed below) divided by the total taxable property in a jurisdiction. This coverage ratio, which measures the completeness of the tax roll information, is determined by the administrative efficiency of identifying and capturing data on all properties by using either field surveys, secondary property information, or taxpayer-provided information.

4. The valuation ratio (VR) variable is defined as the value on the valuation rolls divided by the real market value of properties on the valuation roll. This measures the accuracy of the property valuation level (i.e., what percentage of market value is being captured through the valuation process).[9] This valuation ratio is important for ad valorem systems when tax rates are not easily adjustable. The valuation ratio level is determined primarily by the frequency of property valuations and can be improved by using simple and cost-effective mass valuation techniques.

5. The collection ratio (CLR) variable is defined as tax revenue collected over total tax liability billed for that year. This collection ratio measures the collection efficiency

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8. Some localities also use progressive tax rates on higher-value properties (e.g., Jamaica and Calcutta, India). See Dillinger, *Urban Property Tax Reform*.

9. The valuation ratio measures the absolute valuation level, not the relative valuation accuracy, which is measured by the coefficient of dispersion. It is the relative valuation that determines the equity of a property tax system.

on both current liability and tax arrears. It is largely determined by political will and the effective use of incentives, sanctions, and penalties.

As this simple conceptual model indicates, tax revenues depend on both tax policy choices and administrative efficiency. Tax policy choices affect tax base definitions, exemptions, valuation standards, tax rates, and collection and enforcement provisions; whereas, tax administration choices affect the fiscal cadastre completeness, property valuation accuracy, tax billing and collection efficiency, and the ability to enforce compliance.

Although tax policy decisions can improve revenue yield, the key to increasing revenue buoyancy is improved administration, especially in developing countries. Regardless of the tax policy choices, governments must ensure that all property is captured on the tax rolls, that property is valued close to market value, that tax is assessed accurately, and that revenue is collected and enforced. Thus, the coverage, valuation, and collection ratios are the critical administrative variables that ultimately determine effective tax rates, the tax burden for each property, the total revenue yield, economic efficiency, and overall equity.

Using this revenue model, it is possible to estimate the potential revenue yield from improved administration in any country. For example, a typical developing country may have a coverage ratio of about 30 percent, a valuation ratio of about 30 percent, and a collection ratio of about 30 percent.[10] Therefore, holding tax base and tax rate constant, it would be possible to more than double tax yield merely through administrative improvements to expand the coverage, valuation, and collection ratios. Assuming these three ratios could be increased from roughly 30 percent to even 50 percent, the revenue yield could increase by over 300 percent.[11] Improving administrative efficiency alone can generate important revenues needed for local government finance while simultaneously improving equity and efficiency.

The following section applies this conceptual model to identify a set of possible parameters and lessons for an appropriate property tax reform strategy in Kenya as an example for other developing countries.

CRITICAL RATIOS FOR IMPROVING PROPERTY RATES IN KENYA

Coverage Ratio (Property Information)

The first step in property tax administration is the assembly and maintenance of tax base information. This compilation of property-related information, called the "fiscal cadas-

10. Ratios vary by local authority within a country. Nairobi, for example, uses a valuation roll from 1982, which means its average valuation ratio could be close to 10–20 percent, whereas Dar Es Salaam completed its valuation roll in 1996 and may have a valuation ratio closer to 80–90 percent.

11. This 337 percent change is derived from the percentage change from the current ratios (i.e., 0.3*0.3*0.3 = 0.027) to the improved ratios (i.e., 0.5*0.5*0.5 = 0.125). The percentage change from 0.027 to 0.125 is 362 percent (more than three times the current revenue yield).

tre," would include essential information on land and improvements depending on the policy choice regarding tax base definition. The challenge everywhere is to ensure that this basic information is up-to-date and accurate—that is, to maintain the coverage ratio as close to 100 percent as possible.

In Kenya, the Rating Act allows local authorities to tax either land or land and improvements (e.g., buildings). Although the first application of "rating" in Mombasa in 1921 was based on land and improvements, all rates in Kenya are currently levied only on land.[12] Improvements are not taxed. Although taxing only land can limit revenue potential and buoyancy and introduce a number of equity issues, it is often argued that taxing improvements will discourage investment and thus encourage underutilization of land.[13]

The Rating Act provides broad flexibility in defining the tax base. Rating authorities may use an area rate, an agricultural rental value rate, a site value rate or a site value rate in combination with an improvement rate. Under area rating, the law provides flexibility to use one of five different options, including a flat rate or a graduated rate upon the land area, differentiated flat or graduated rates according to land use, or any other method of rating upon land or buildings that the rating authority may resolve.

Despite this legal flexibility, all local authorities in practice limit their tax assessment to area rating and valuation rating. Ninety-two of the 174 local authorities in Kenya are "rating authorities." Of these ninety-two rating authorities, seventy-three use valuation rating, thirty-eight use area rating, and twenty use a combination of both area and valuation rating. As Table 2 indicates, municipalities and towns tend to rely on valuation rating, whereas the more rural counties tend to use area rating or a combination of area and valuation rating. Area rating tends to be used for rural or agricultural properties, and valuation rating tends to be used for urban properties.

In Kenya, fiscal cadastre information can be broken into two components. First, there is a valuation roll to cover those properties taxed under an ad valorem rate. This valuation roll typically includes both private and public land located in the established, gazetted area of local councils. Second, there is the property tax information for area rating, which tends to cover the peri-urban areas and land areas located outside the gazetted area of the local councils. The area rating roll is used primarily for government forests and large farms. These two separate sources of property information create the basis for building the broader, comprehensive fiscal cadastre.

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12. In contrast, neighboring countries in East Africa tax either buildings only (e.g., Tanzania) or land and buildings (e.g., Uganda). See Roy Kelly, "Property Tax Reform in East Africa: The Tale of Three Reforms," Working Paper, (Cambridge, Mass.: Lincoln Institute of Land Policy, 2000), for a comparison of the three ongoing reforms in East Africa.

13. The extent of this inefficiency, however, depends on the returns to the investment in improvements relative to the tax burden. The efficiency gains from taxing only land in developing countries is often overstated, since the effective property tax rates on improvements in most developing countries compared to other capital investments is quite low. These low effective tax rates result from the coverage, valuation, tax, and collection ratios. Some countries have combined the benefits of a pure land tax with the benefits of taxing improvements by introducing either a land tax combined with a luxury housing tax (e.g., Barbados) or a land and building tax with a building valuation deduction (e.g., Indonesia).

TABLE 2
Breakdown of Property Rating in Kenya (1995)

Type of Local Authority Councils	Rating Authorities	Local Authorities Using Valuation Rating	Local Authorities Using Area Rating	Local Authorities Using Both Area and Valuation Rating
Municipalities	37	37	4	4
Towns	16	14	6	4
Counties	38	22	28	12
Total	92	73	38	20

Source: Ministry of Lands and Ministry of Local Authorities, 1997.

The valuation roll is legally required to include all private land and public land located within the gazetted area of the councils. Even tax-exempt land must be included in the valuation roll, thus its coverage ratio should be 100 percent. These valuation rolls are mandated to be issued once every ten years, whereas supplementary rolls are to be issued annually to update property information changes.

In practice, the fiscal cadastre information in Kenya is neither up-to-date nor complete. It is estimated that the fiscal cadastre coverage ratio may range between 30 and 70 percent of total taxable land. In addition to outdated information, many local authorities exclude "freehold" land (e.g., Nyeri, Kerugoya, Murang'a and Kwale local councils), agricultural land less than 12 acres (e.g., Kilifi town council), and/or most private land in the area rating rolls. Public land (both central government land and council trust land) not yet "registered" is also excluded from the private valuation roll, although technically this land should be contained on the public valuation roll and liable for contributions in lieu of rates.[14]

Local authorities typically have insufficient capacity to systematically maintain and coordinate their fiscal cadastre information. With the exception of the largest councils (Nairobi, Mombasa, Nakuru, and Kisumu), local authorities depend on the Rating Department at the Ministry of Lands to create and update their valuation rolls. All fiscal cadastre information is manually maintained without the assistance of computers. As Table 3 confirms, these various rolls are not kept up-to-date—many valuation rolls date back to the early 1980s, with only a sporadic and ad hoc issuance of incomplete supplementary valuation rolls. Nairobi Municipal Council, for example, uses a valuation roll from 1982, and there are at least eighteen local authorities using valuation rolls over ten years old.

The legal basis to ensure a full coverage ratio is adequate—the problem is administra-

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14. Kenyan law requires the government to pay to the local authority an annual "contribution in lieu of rates" that is, in essence, the property rates equivalent owed by the central government.

TABLE 3
Current Status of the Valuation Rolls in Kenya

Year of Valuation Rolls	Number of Local Authorities
1982–1985	18
1986–1990	31
1991–1995	19

Source: Ministry of Lands, 1996.

tion. The government has typically not maintained the fiscal cadastre information because of the scarcity of maps, lack of easily available land information, and insufficient qualified and motivated staff. Although legal mechanisms can facilitate the systematic flow of property-related information, coverage ratio improvement in Kenya is largely a matter of establishing an appropriate administrative structure and operating procedures, providing training and incentives to administrative staff, and ensuring that procedures are maintained in a systematic manner. The introduction of computerization would improve the ability to manage this fiscal cadastre information and improve the coverage ratio. An appropriate reform strategy to improve the coverage ratio would simplify field data collection procedures, adopt appropriate information standards, develop personal and institutional incentives to motivate operational staff, and increasingly use computers linking administrative procedures with computer data processing capabilities.[15]

Valuation Ratio

Using this fiscal cadastre information, a property tax system must determine the tax assessment basis that would allocate the tax burden among available properties. Typically property tax is assessed on either property physical characteristics such as land area or property value as determined by the property tax administration. The key objective is to determine the *relative proportion* of total tax to be paid by each property based on either land area or property value.

In Kenya, the law provides broad flexibility in how property tax burden can be distributed among taxpayers. In practice, most county councils allocate tax burden based on area, whereas municipal and town councils allocate based on value. For those properties weighted by property value, the law provides for either unimproved site value or a combination of site value and improvement value. The law provides complete flexibility in choice of valuation methods.

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15. See Roy Kelly, "The Evolution of a Property Tax Information Management System in Indonesia," in *Information Technology and Innovation in Tax Administration,* ed. G. Jenkins (Cambridge, Mass.: Kluwer, 1996), 115–135, and Marco Montes, "Development and Operation of the Property Tax Information System in Chile," in Jenkins, *Information Technology,* 137–150.

In practice, all local authorities using a value-based system assess on unimproved site valuation. Except for the four largest councils (Nairobi, Mombasa, Nakuru, and Kisumu), all valuation rolls are prepared with the assistance of the Ministry of Lands Rating Department using a single-parcel appraisal, which creates a backlog of out-of-date valuation rolls, because of the lack of trained rating valuers, financial resources for revaluations, and institutional and personal incentives. More cost-effective mass-valuation techniques have not been used to date by any rating authority in Kenya.

Unfortunately there are few empirical studies on the level and accuracy of individualized property valuations in Kenya. From the limited information available, the valuation ratio is estimated to range between 20 and 80 percent of real market values, and the dispersion between property valuation on the rolls and the real market value is high, heavily correlated with the age of the rolls. Although valuations may be accurate when first produced, this accuracy erodes over time because of the shifts in relative and absolute market values. These low absolute valuation ratios and the variation among values create efficiency and equity distortions affecting compliance and overall revenue yield.

The low valuation ratio (and the increasing inequity among properties) is due largely to the tremendous lag in maintaining the rolls. As previously discussed, revaluations are required every ten years. Therefore, to compensate for the lag in revaluations, local councils have been allowed to increase nominal tax rates. In Nairobi, for example, the tax rate for residential property increased from 2.25 percent in 1982 to 17 percent in 1999, a tax rate increase basically equivalent to the inflation rate, thereby holding the average real tax burden per property constant over eighteen years.

Although tax rate adjustments can maintain increased tax revenues, they do not adjust the relative tax burden distribution among taxpayers. Relative equity is not readjusted to reflect differential changes in property values within a taxing jurisdiction. An analysis of the 1981 revaluation in Nairobi, for example, suggests that residential values increased by 600 percent, commercial values increased by 250 percent, and those for industrial land decreased by 225 percent. Thus, from 1971 to 1981, the average tax burden shifted from the commercial and industrial sector to the residential sector. In addition there were major shifts in the relative value of different geographic areas (e.g., residential land in Westlands increased by 370 percent, Eastleigh, Kamobangi, and Mathare Valley Estates by 692 percent, and Buruburu and Herabee Kemanthi Estates by 594 percent).[16]

The rapid urbanization rate in Nairobi over the eighteen years between 1981 and 1999 would have further exacerbated the relative valuation shifts between sectors and location. If these relative shifts were captured in the valuation rolls, there would be a major reallocation of the tax burden among ratepayers. The current reliance on increases in nominal tax rates, however, does not adjust for relative changes in values and the resulting shifts in tax burden.

In addition to the equity implications, infrequent revaluations typically cause massive

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16. Francis Daudi, *Rating: A Case Study of the 1981 Nairobi City Valuation Roll*, master's thesis, University of Reading, 1986.

political outcry as newly assessed values typically cause dramatic shifts in relative values and thus relative tax burdens. The dramatic shifts in relative values during the 1981 revaluation in Nairobi caused tremendous public outcry and apparently required the intervention of the Ministry of Local Government and the Ministry of Lands and two cabinet papers before the roll was finalized. The more recent revaluation of Mombasa in the early 1990s caused a similar public outcry, delaying its application until 1995–96.

The valuation ratio accuracy and level can be improved only through regular valuation roll updating to reflect changes in relative and absolute property market values. This can be done through a combination of simplifying the valuation system (shifting to mass valuation), computerizing the maintenance of the fiscal cadastre and the valuation process, and increasing the amount of manpower and financial resources allocated to rating roll maintenance. More frequent revaluations would increase the valuation ratio and simultaneously improve revenue and equity at lower political cost.

Tax Ratio

Using the fiscal cadastre information and property values as necessary, a property tax system must apply the legally mandated tax rates, exemptions, deductions, and credit guidelines in order to correctly assess and bill individual property tax liability.

In Kenya, the Rating Act gives each local authority the power to set the tax rate in its locality. The tax rate can be set either as a per-unit rate, in the case of area rating, or as a per-value rate, in the case of valuation rating. The unit area or the value rate can be either uniform or differential, with any differential rates either proportional or graduated based on land use, value, or size. Local authorities may choose a tax rate of up to 4 percent; above that rate, central government approval is needed—a precautionary measure to protect the interests of the taxpayers.

In general, local authorities in Kenya tend to use a uniform area rate or a uniform tax rate structure. As Table 4 indicates, tax rates range from 2 to 13 percent, with a median tax rate of 7 percent for municipalities and 5 percent for both towns and counties. Those jurisdictions with higher tax rates tend to be those with the oldest valuation rolls. Only a few local governments apply a classified tax rate structure. The most notable is Mombasa,

TABLE 4
Range of Tax Rates by Type of Local Authority, 1996–97

Type of Local Authority	Range of Tax Rates (%)	Median Tax Rates
Municipality	4% to 13%	7%
Towns	4% to 10%	5%
County	2% to 8%	5%

Source: Ministry of Lands and Ministry of Local Authorities, 1997.

which differentiates rates by location, with those properties located on Mombasa Island paying a higher rate than those properties located on the mainland.

In Kenya, only a few local authorities are using computers for assessment and billing purposes. These computer systems were typically developed in the late 1980s as stand-alone billing systems, not linked to the broader property information management, property valuation, and tax collection or enforcement functions. Major improvement in the administration of the tax ratio could be realized with the introduction of a computerized property tax information management system to assist with tax assessment and the complete property tax administration system.[17]

Collection/Enforcement Ratio

Following property identification, valuation and assessment, a property tax system must collect the tax and enforce compliance. Strategically speaking, tax collection and enforcement of compliance are the most important components of the property tax system, since the property tax is primarily a fiscal instrument for revenue generation.[18]

If revenue is the primary objective for property taxation, it is clear that identifying and valuing the tax base—as important as they may be—are only supportive activities. Maps, property information, and property valuations are only intermediate outputs used to obtain the revenue objective. This emphasizes the prime importance of improving the collection ratio.

As with many countries, Kenya has a major problem with tax collection and enforcement.[19] It is estimated that even the most effective councils may collect only about 60 percent of the rates due, whereas the least effective councils may collect as little as 20 percent.[20] This low collection ratio can be attributed to such factors as (1) lack of political

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17. As part of the ongoing Kenya Local Government Reform Programme, two governments are now piloting a new computer-assisted integrated financial management system (IFMS) that incorporates a rates administration management system (RAMS).

18. The property tax can also be used to improve efficiency (e.g., through using vacant land taxes or betterment taxes) and improve equity (e.g., through taxing real estate capital equally). These objectives can be accomplished, however, only if the property tax is uniformly and effectively collected and enforced.

19. Although statistics are scarce, those for a few representative countries indicate that tax delinquency is a common problem. For example: In 1975, La Paz, Bolivia, collected property tax from only 25 percent of the properties (37,500 of the property units out of 150,000 units) [Richard Musgrave, *Reform in Bolivia: Final Report of the Bolivian Mission on Tax Reform* (Cambridge, Mass.: Harvard Law School International Tax Program, 1981)]. The collection rate for rural and urban property taxation in Indonesia was about 65 to 79 percent (Roy Kelly, "Implementing Tax Reform in Developing Countries: Lessons from the Property Tax in Indonesia," *Review of Urban and Development Studies* 4 (1992): 193–208). In Senegal, Nigeria, Ivory Coast, and Liberia, property tax delinquencies averaged at least 50 percent, and collection rates were sometimes as low as 10 percent, in 1980. In Abidjan, Ivory Coast, the collection rate was only 18 percent (World Bank, "Urban Taxation in West Africa, " EDI Training Materials Course Note 785/013; originally issued in March 1984 as World Bank Report No. 4754-WAP, World Bank, Washington, D.C.). In Ibadan, Nigeria, the collection rate was only 9 percent (William Dillinger, *Urban Property Tax Reform*).

20. World Bank, *Kenya Local Government Finance Study* (Washington D.C.: World Bank, 1992).

will, (2) lack of transparent administrative collection and enforcement mechanisms, and (3) lack of taxpayers' confidence in or understanding of how the tax is levied, collected, enforced, and used.

Although substantial changes could be made to improve taxpayer education and rationalize the collection and accounting systems, the primary reason for the poor collection rate in Kenya is the lack of effective enforcement. Despite having a variety of legal options, rating authorities have taken a largely passive role in enforcement, relying almost exclusively on rate clearance certificates. This clearance certificate option relies on taxpayer initiative to clear outstanding debt and thus is effective only when property is transferred or when a local business permit or other local service is being requested.

Active enforcement (through fines, tax liens, and foreclosures) of tax collection is virtually nonexistent. Only a few local authorities, such as those in Nairobi and Mombasa, occasionally publish names of delinquent taxpayers in the newspaper, and some local authorities do initiate court cases against delinquent taxpayers, both with mixed results. To date, no local authority has applied the legal option of tax caveats to titles or property foreclosures as a means of enforcing tax payment. To improve tax compliance and the collection ratio, political will must be mobilized, administrative systems must be rationalized and improved, and local officials must be made aware of and be willing to use the available legal provisions for enforcement.

As this section indicates, successful property tax reform in a typical developing country like Kenya hinges on how to develop an appropriate mix of policy and administrative reforms that can:

1. increase the coverage ratio by ensuring that the tax roll information is complete,
2. increase the valuation ratio by ensuring that the property valuations are up-to-date,
3. ensure that the tax ratio and related assessment procedures are correctly administered, and
4. increase the collection ratio by ensuring that the tax liabilities are collected and compliance enforced.

Let us now conclude by identifying five lessons for developing an appropriate property tax reform strategy as derived from the example of Kenya.

PROPERTY TAX REFORM LESSONS FROM THE KENYA EXPERIENCE

Although policy debate concerning tax base definitions, exemptions, and tax rate structures is a favorite topic among public finance economists, the reality in the developing world is that improving administration—not fine-tuning policy—is the critical key to better property tax performance. As the case study of Kenya illustrates, there is tremendous potential from improving basic property tax administration in terms of increasing the coverage, valuation, and collection ratios. With this in mind, let us identify some con-

cluding lessons from the case of Kenya that may assist other developing countries in developing an appropriate property tax reform strategy.

First: Although the simple conceptual model identifies a common set of policy and administrative variables, each country must identify the specific improvement options available and creatively develop a reform strategy tailored to its own unique legal, political, and institutional conditions. This involves a thorough analysis of specific policy and administrative opportunities and constraints and the development of an appropriate property tax reform strategy that can be implemented.

Second: As indicated in Kenya, strong political support is a prerequisite for successful property tax reform related to improving the collection ratio through using active enforcement provisions such as fines; liens and foreclosures; the coverage ratio, when compiling often sensitive land information into a more public fiscal cadastre roll; and the valuation ratio, when shifting toward a more cost-effective mass valuation approach.

If possible, therefore, property tax reforms should build on the momentum and political support of other ongoing reform efforts. In the case of Kenya, for example, the property tax reform should be designed as an integral component of the ongoing Kenya Local Government Reform Programme, which introduced a new central-local transfer program and the nationwide adoption of a single business permit in January 2000.[21] Synchronizing the property tax reform with this broader decentralization effort will enable the reform to take advantage of the existing political support and reform momentum. Other countries may want to leverage their property tax reform effort with other ongoing tax, decentralization, local government finance, or infrastructure investment reforms.

Third: As in Kenya, most developing countries must focus their property tax reform priority on improving administration. The existing legal framework in most countries provides an adequate framework for implementing substantial property tax improvements. Policy is not normally the binding constraint: The major obstacle is administration. Thus, the priority must be on implementing basic administration procedures to improve the coverage, valuation, and collection ratios.

These property tax administrative reforms must, however, be strategic. Rather than adopting a narrow "valuation-pushed" strategy, for example, Kenya, as with many developing countries, has chosen to adopt a "collection-led" reform that focuses comprehensively on issues of collection and enforcement, property information, and valuation.[22] Focusing on only property valuation—for example, solely creating up-to-date valuation rolls—is not necessarily useful when the primary problem is inadequate political will, collections, and enforcement. At the same time, relying on a one-time valuation roll creation exercise by the private sector may be expedient but not necessarily useful unless local-level institutional capacity is simultaneously developed to ensure that the coverage ra-

21. Government of Kenya, *Local Authorities Transfer Fund Act, 1998,* and Roy Kelly and Nick Devas, *Regulation or Revenue? Implementing Local Government Business Licensing Reform in Kenya*, Harvard Institute for International Development Discussion Paper no. 723, Cambridge, Mass., 1999.

22. Roy Kelly, "Property Tax Reform in Indonesia: Applying a Collection-Led Strategy," *Bulletin of Indonesian Economic Studies* 29 (1993): 1–21, and "Property Tax Reform in East Africa."

tio is maintained over time. All administrative reform must be comprehensive, targeted strategically to ensure success in increasing the various ratios.

Fourth: Although the property tax base may be defined centrally, economic efficiency would suggest that local authorities receiving the revenues from that tax base must control the major variables affecting those revenues—namely, the four critical ratios of coverage, valuation, tax, and collection. Given the relatively weak local administrative capacity in developing countries, it is crucial that administrative procedures to increase the coverage, valuation, and collection ratios be kept simple and cost-effective. Inappropriate standards and complicated procedures can force local authorities to rely on external agencies for their property tax administration, which can lead to excessive delays and costs due to lack of institutional and personal incentives.

In the case of Kenya, for example, local authorities rely almost exclusively on the Ministry of Lands Rating Department for both property data collection and valuation, which directly affect the current low coverage and valuation ratios. Local authorities must be gradually empowered to control the activities affecting the coverage, valuation, and collection ratios. One possible solution would be for local authorities to use area rating, with possible broad adjustments for location. This area-rating approach is simple and cost effective, requiring only a list containing taxpayer name, taxpayer location, property location, property area, and area-rating tax due. Over time, as local capacity increases, properties could be shifted to an ad valorem system using simple mass valuation techniques, as necessary. Under this approach, single-property appraisal could be reserved for unique, high-value properties and could be contracted to either the private sector or the Ministry of Lands Rating Department, as necessary.

Fifth: To overcome administrative constraints, countries everywhere are increasingly using computers to improve fiscal cadastre maintenance, valuation, assessment, billing, collection and enforcement, dispute resolution, and taxpayer service. In most developing countries, tax administration to date has been almost exclusively manual. For example, computer use in Kenya has to date been limited to tax billing in only a few local governments. Thus, an important component of any property tax reform strategy should be the development of a computer-based rates administration management system (RAMS) to link data-processing procedures to the tax administrative procedures and facilitate the improvement of the coverage, valuation, and coverage ratios.

Using the case of Kenya, this article has applied a simple analytical framework to identify the key variables affecting property tax reform. In addition to basic tax policy decisions, the model has identified four ratios of coverage, valuation, tax, and collection that emphasize the primary importance of administration improvement. The case study of Kenya was used to identify various options for improving these important ratios, concluding with five basic lessons for designing appropriate property tax reforms in developing countries. It is hoped that this simple analytical model as applied to Kenya will serve as a useful tool for designing appropriate property tax reforms in other developing countries in Sub-Saharan Africa.